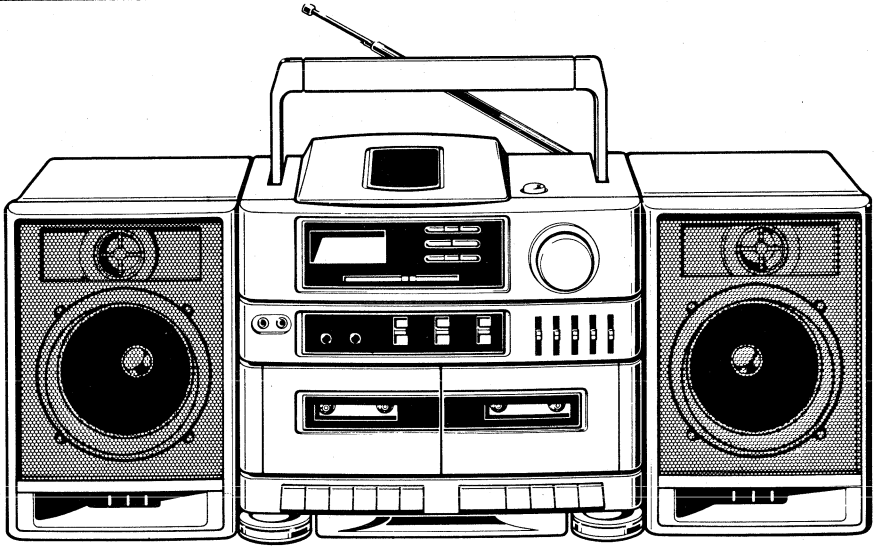
SAMSUNG Electronics

SERVICE MANUAL

MODEL: PCD-700/PCD-710

RADIO CASSETTE RECORDER WITH COMPACT DISC PLAYER



PCD-700

SPECIFICATION

GENERAL

Frequency response	:	20-20000Hz
Speakers	:	Woofer : ø 127mm x 2 (3.2 Ω) Tweeter : ø 27mm x 2
Maximum output	:	4.5W/CH (RMS) at DC
Power source	:	AC: See label rating DC: 13.5V (D, UM1, HP2x 9)
Power consumption	:	20W
Dimension	:	638(W) x 208(H) x 243(D)mm
Weight	:	6.5Kg (Without batteries)
Headphone jack	:	ø 3.5mm (stereo)
Microphone jack	:	ø 3.5mm (Mono)

TAPE

Track system	:	4 track 2 channel
Recording system	:	AC bias (DECK A)
Erasing system	:	Magnetic erasing (DECK A)
Monitor system	:	Variable monitor
Frequency response	:	Normal 50 – 6300Hz CrO_2/METAL (PB) 50-10000Hz
Tape speed	:	4.75cm/sec (Normal speed) 9.5cm/sec (High speed)
Tape drive system	:	Capstan belt driven
Tape loading system	:	Front loading
Motor system	:	DC synchronous 2 speed motor (DC 12V)

RADIO

Frequency range	:	FM: 88 – 108MHz AM(MW): 530 – 1605KHz LW: 150 – 285KHz SW: 6 – 18MHz
I.F	:	FM: 10.7MHz SW/AM(MW)/LW: 455 or 465KHz
Antenna		FM/SW: Telescopic rod antenna AM(MW)/LW: Ferrite bar antennna

COMPACT DISC PLAYER

Frequency range	:	20 – 20,000Hz
Dynamic range	:	83 dB (1KHz) with filter
Signal to Noise ratio	:	82 dB (1KHz) with filter
Wow and flutter	:	0.001%
D/A conversion	:	16 bit

Design and specifications are subject to change upon improvement without prior notice.

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— OPTION —

UL/CSA	:	American (UL)/Canadian (CSA) model	AUS	:	Australian model
FTZ	:	Germany model	LW	:	LW band equipped unit
BS	:	UK model	SW	:	SW band equipped unit

■ SAFETY PRECAUTION

1. CLASS 1 LASER PRODUCT

This compact disc player is classified as a CLASS 1 laser product.

2. LASER WARNING LABEL

The label shown below may be affixed or not according to country.

(UL)

This Product Compiles with DHHS Rules 21CFR, Sub chapter J.At date of Manufacture.

(CSA)

CERTIFIED ONLY TO CANADIAN ELECTRICAL CODE.

CERTIFIE EN VERTU DU CODE CANADIAN DE LELETRICITE SEULEMENT

(EU)

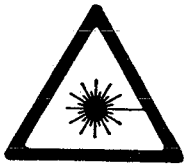
CLASS 1
LASER PRODUCT

Location : Enclosure back.

(SCAN)

ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UED AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

(EU)



UL	:	Manufactured for U.S.A. Market.
CSA	:	Manufactured for Canadian Market.
EU	:	Manufactured for European Market
SCAN	:	Manufactured for Scandinavian Market.

Location : on the disc clamper or inner side of CD door or nearby CD chassis.

3. LASER BEAM WARNING

ADVERSEL — USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING — OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRALEN ÄR FARLIG.

VARITUS — LAITE SISÄLTÄA LASERDIODIN, JOKA LÄHETTÄÄ NÄKYMÄTÖNTA SILMILLE VAARALLISTA LASERSATEILYÄ.

CAUTION — INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

4. LASER DIODE SPECIFICATION (OPTICAL PICK-UP)

- Material: AlGaAs
- Wavelength: 760-800nm
- Emission duration: Continuous
- Laser Output: 0.2mW
  * This output is the value measured at distance 1.6mm from the objective lens surface on the optical pick-up block.
- Classification: CLASS 1

5. WARNING FOR SERVICING

WARNING: When servicing, do not approach the LASER exit with the eye too closely. In case it is necessary to confirm LASER beam emission, be sure to observe from a distance of more than 30cm from the surface of the objective lens on the optical pick-up block.

VARNING: När underhållningsarbeten utförs, närma dig försiktigt och se inte på laserutstrålningen på för näre häll. Ifall det är nödvändigt att betrygga laserstrålens utströmning. Var säker att kontrollera detta från ett avstånd av mer än 30cm (11.81 inch.) från den objektiva linsens yta på den optiska utsåndningspunkten.

ADVARSEL: Når repareringsarbejdet udfoeres, naerm dig forsigtigt og se ikke på laserudstrålingen på for naer hånd. It ilfaeldet at det er noedvaendigt at bestemme laserstrålens udstråling. Vaer sikker på kontrollere dette fra en afstand af mere end 30cm (11.81 inch.) fra den objektive linses overflade på den optiske udsendningspunkt.

VAROITUS: Silmiä on varottava viemästä liian läbeiie Laser-poistokanavaa huoiion aikana. Jos on välttämätöntä varmistaa Laser-Säteen päästö, pysyttels sitä tarkasteltaessa vähintään 30cm etäiyydellä optisen lukon objecktiivilinssin pinnasta.

■ SERVICING NOTE

1. Disconnect power supply cord before separating cabinet for servicing as you may experience an electric shock.
2. Avoid repairing under direct sunshine and heat which may cause cabinet, transistor and IC to be transformed or misoperate.
3. Use a soft cotton swab moistened with warm water or neutral cleaner when parts of a unit need to be cleaned.
4. When replacing parts with safety features built in, be sure to use specified parts with same specifications only.
5. Avoid repairing the set near a TV or any other magnetic forces.
6. Disconnect the plug from wall socket during electric storm to reduce the risk of damage.
7. Be careful of electrostatic damage when replacing the control IC such as μ-COM, LSI and pick-up.

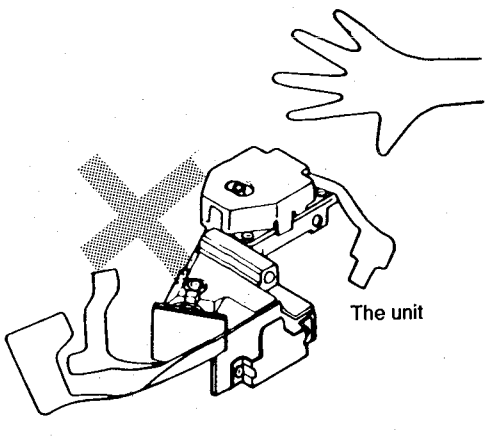
HANDLING THE OPTICAL PICK-UP

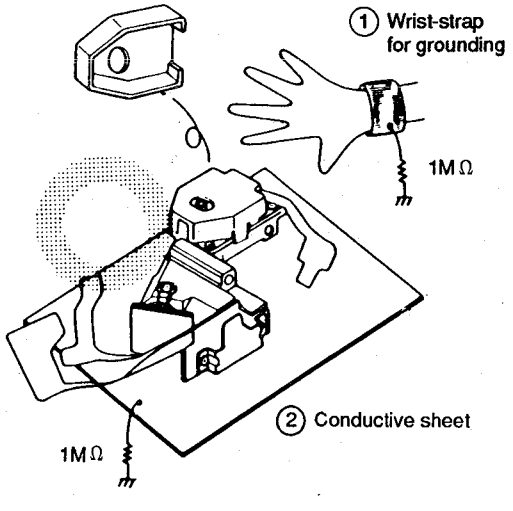
* The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

1. Place a conductive sheet on the workbench. (The black sheet used as wrapping for repair parts.)
2. Place the set on the conductive sheet so that the chassis is grounded to the sheet.
3. Place your hands on the conductive sheet. (This gives them the same ground as the sheet.)
4. Remove the optical pick up block.
5. Perform work on top of the conductive sheet.
   Be careful not to let your clothes or any other static sources touch the unit.

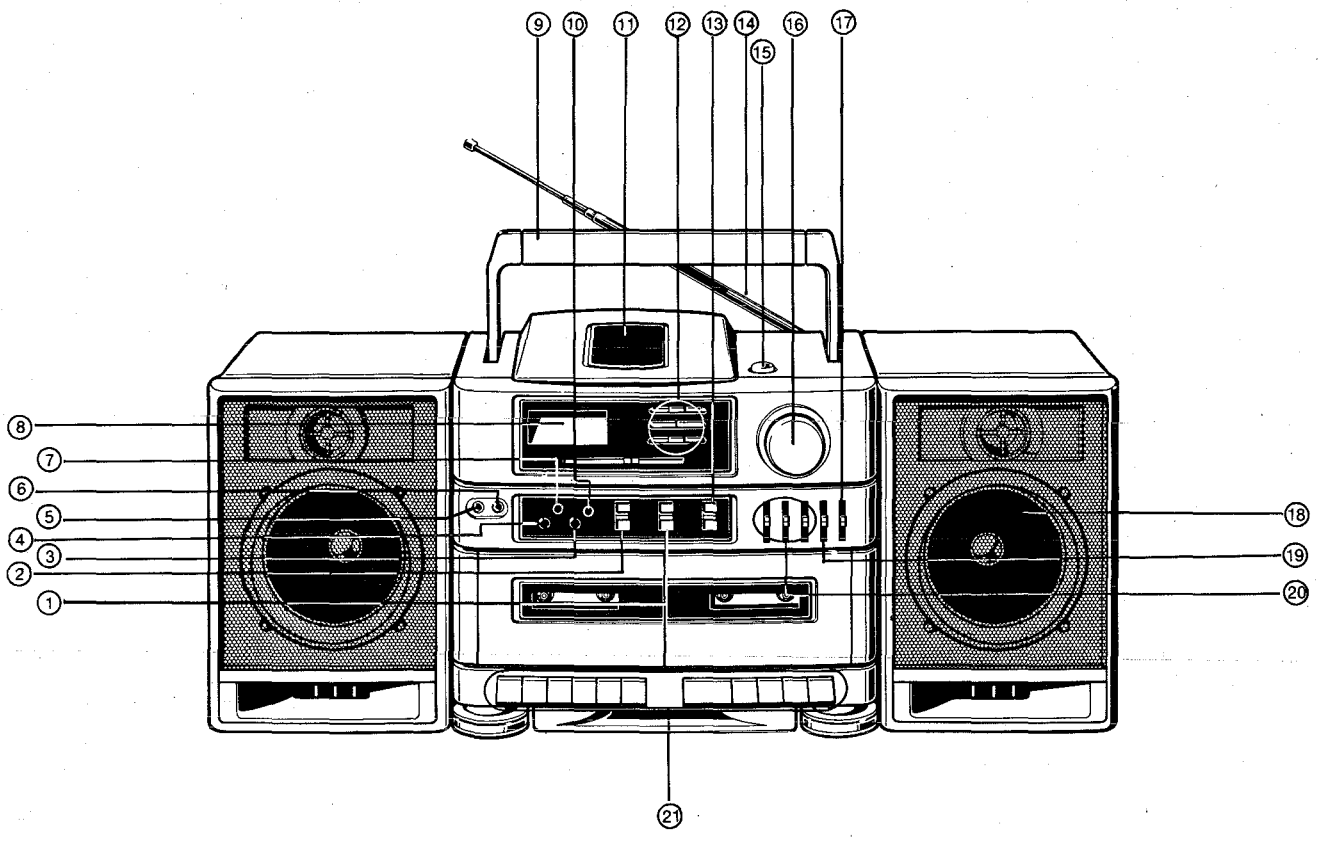
* Be sure to put on a wrist-strap grounded to the sheet.
* Be sure to lay a conductive sheet made of copper etc. which is grounded to the table.



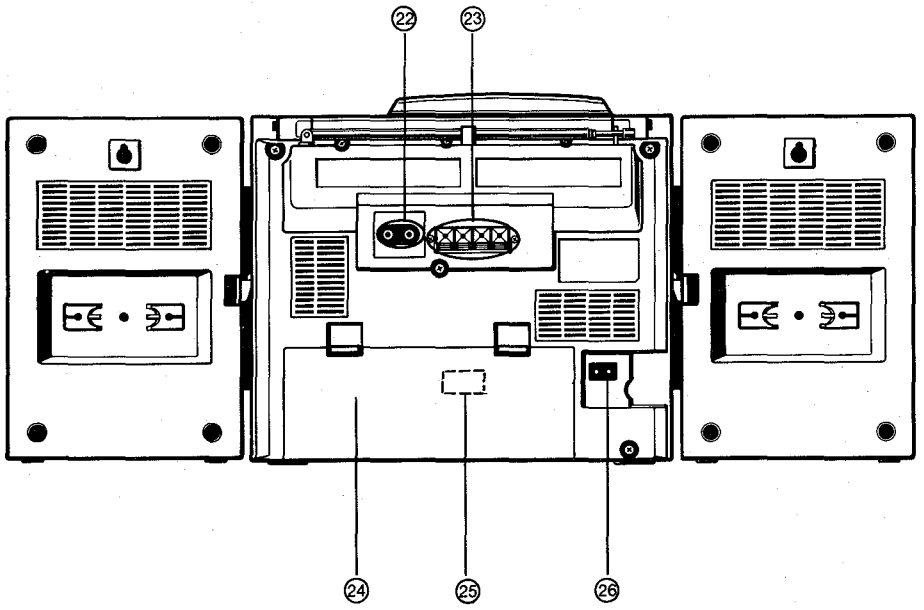


LOCATION OF CONTROLS

FRONT panel



REAR panel



<Front Panel>

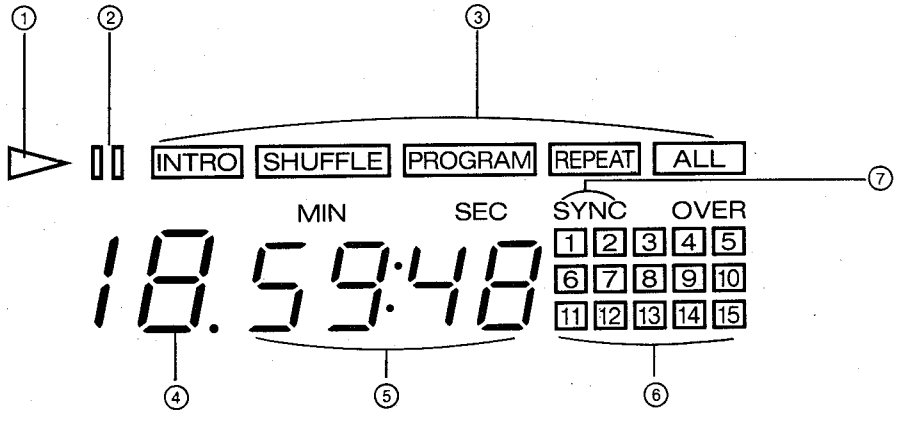
1. DUBB/FUNCTION selector
2. MODE/BEAT CUT selector
3. TAPE SEL button
4. SBS button
5. PHONES jack
6. MIC MIX jack
7. OPR/BATT indicator
8. CD operation LCD
9. Handle
10. FM-ST indicator
11. CD door
12. CD operation buttons
    - +10 button
    - BACK/REW button
    - NEXT/FF button
    - PROG button
    - DISPLAY button
    - MODE button
    - STOP button
    - PLAY/PAUSE button
13. BAND selector
14. Rod antenna
15. PUSH OPEN button
16. TUNING knob
17. VOLUME control
18. Speaker
19. Balance Control
20. 3 BAND EQUALIZER controls
21. Deck operation buttons
    - RECORD button (DECK A only)
    - PLAY button
    - REW button
    - F.FWD button
    - STOP/EJECT button
    - PAUSE button

<Rear Panel>

22. CD OUT jack
23. Speaker Terminal
24. Battery compartment
25. Voltage selector (option)
26. AC IN ~ socket

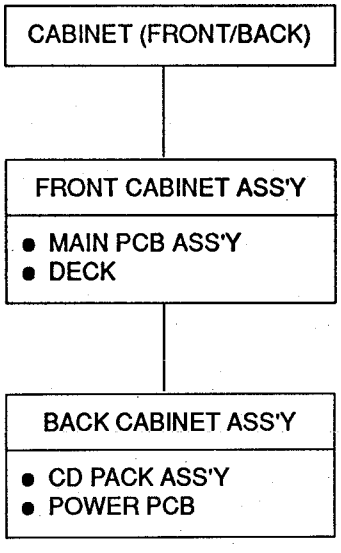
<CD Operation LCD>

1. Play indicator
2. Pause indicator
3. INTRO, SHUFFLE, PROGRAM, REPEAT, ALL indicator
4. Track number indicator
5. Time indicator
6. Track number display (CD CALENDAR)
7. SYNCHRO RECORDING indicator

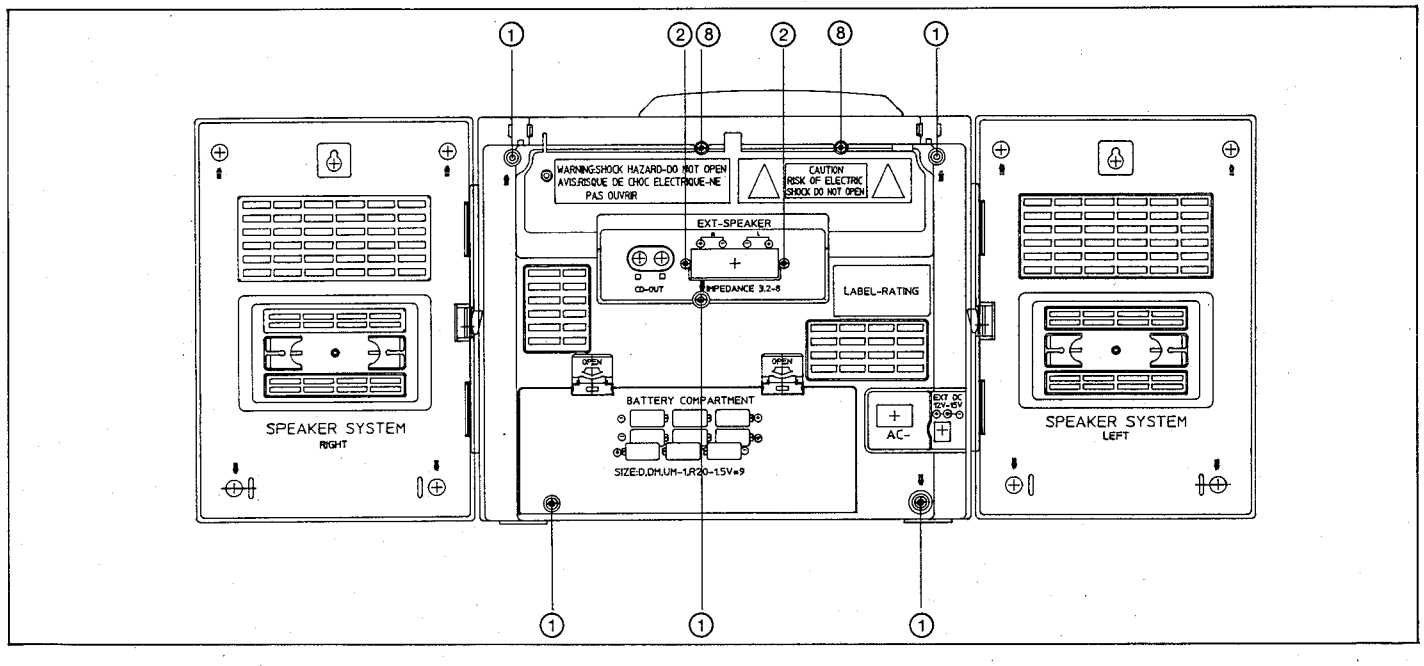


■ DISASSEMBLY INSTRUCTION

PROCEDURE OUTLINE



1. FRONT & BACK CABINET



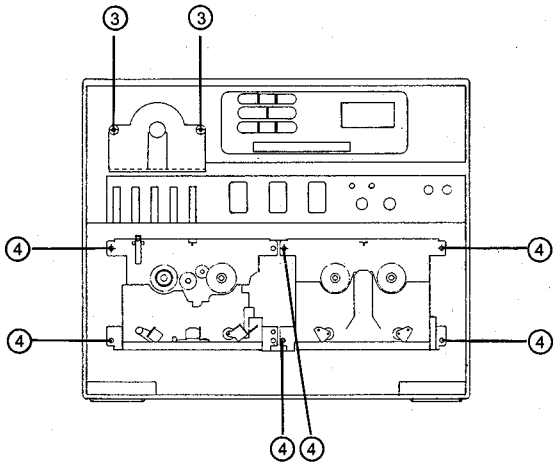
1) Remove the 5 screws ① and 2 screws ②
2) Split Front & Back cabinet.
3) Disconnect connecting wires.

2. MAIN PCB ASSY

1) Remove the 2 screws ③ and take out.

3. DECK

1) Remove the 6 screws ④ .
2) Remove deck from the front cabinet.

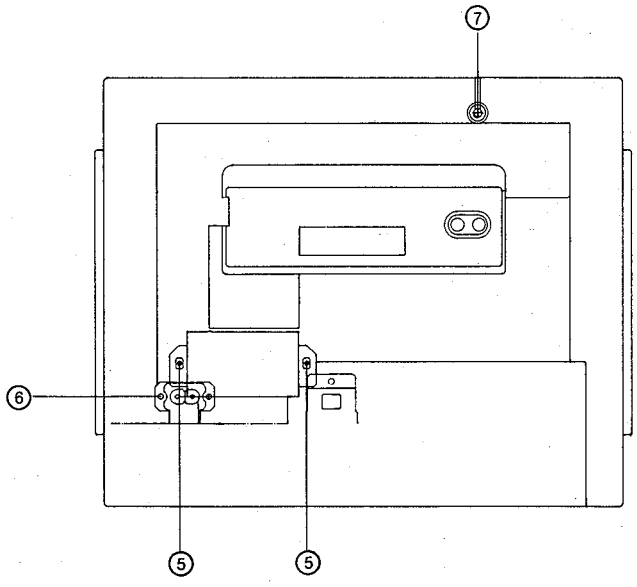


4. POWER PCB

1) Remove the 2 screws ⑤ and the screw ⑥ .
2) Remove power PCB from the back cabinet.

5. CD PACK ASSY

1) Remove the screw ⑦ and 2 screws ⑧ (page 6).
2) Remove CD pack ASSY.

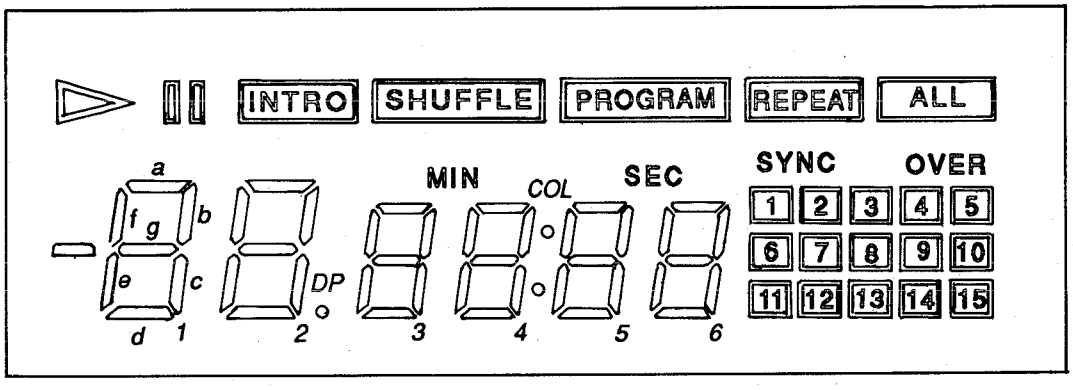


■ DESCRIPTION OF LCD SEGMENT

If one or all of the LCD Segments (see segment diagram below) don't work, check if IC7530 and LCD pins are properly connected refering to the chart below.

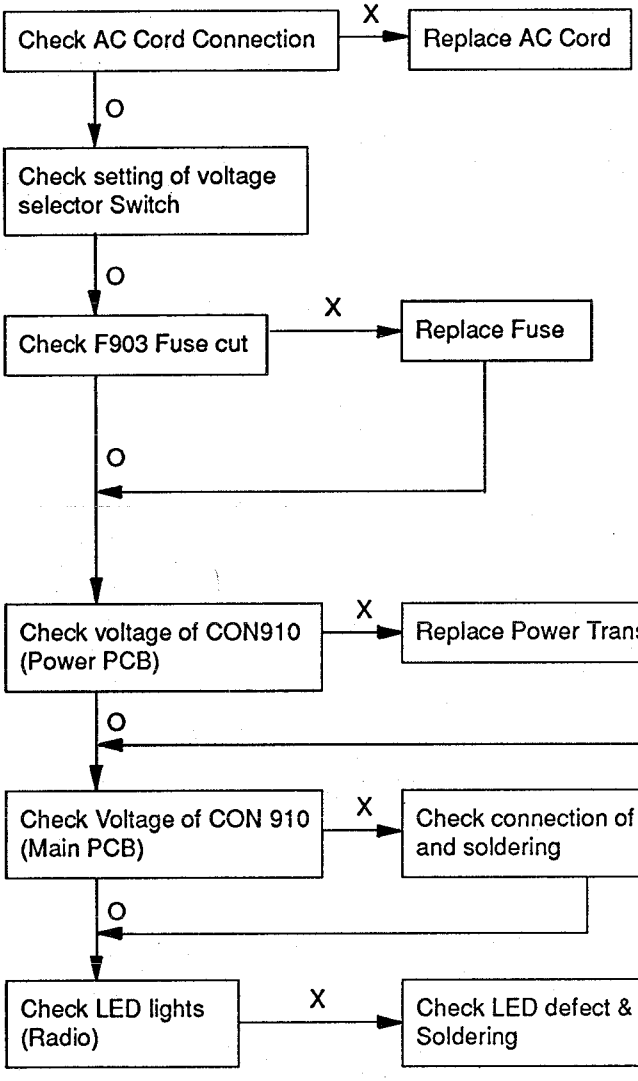
No	1	2	3	4	5	6	7	8	9	10	11	12	13	14
COM1	COM			INTRO	▬	1a		SHUFFLE	2a	DP	PROGRAM	3a	MIN	REPEAT
COM2		COM		►	1f	1g	1b	2f	2g	2b	3f	3g	3b	4f
COM3			COM	■■	1e	1d	1c	2e	2d	2c	3e	3d	3c	4e

No	15	16	17	18	19	20	21	22	23	24	25	26	27	28
COM1	4a	COL	ALL	5a	SEC	SYNC	6a	OVER	1	2	3	4	5	
COM2	4g	4b	5f	5g	5b	6f	6g	6b	6	7	8	9	10	
COM3	4d	4c	5e	5d	5c	6e	6d	6c	11	12	13	14	15	

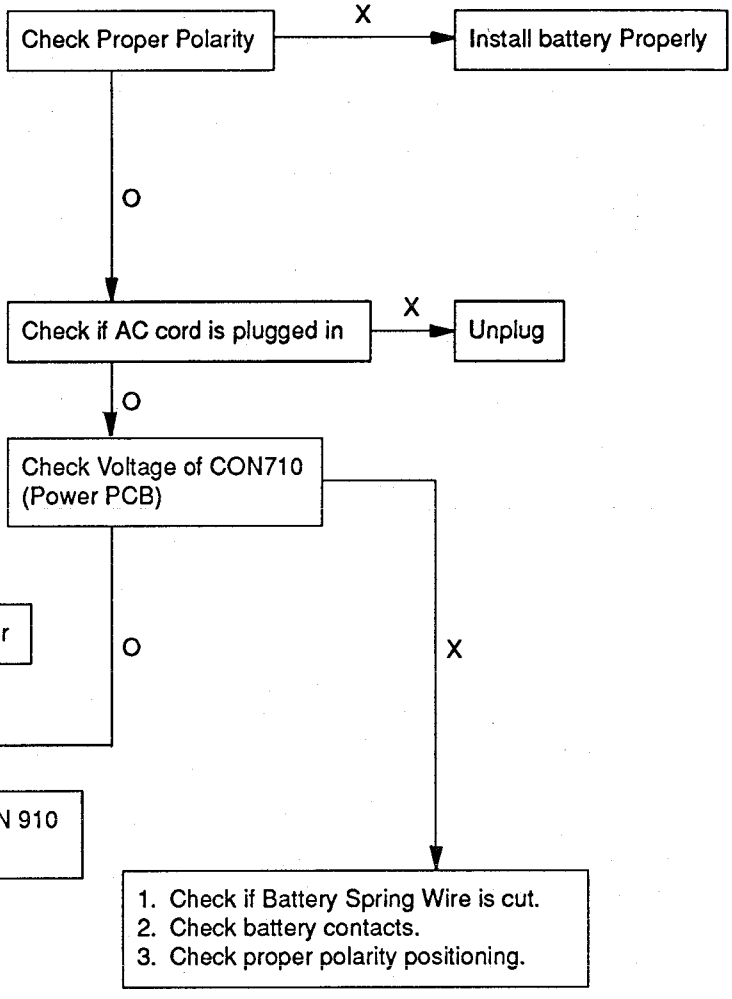


■ TROUBLESHOOTING CHART (RADIO CASSETTE)

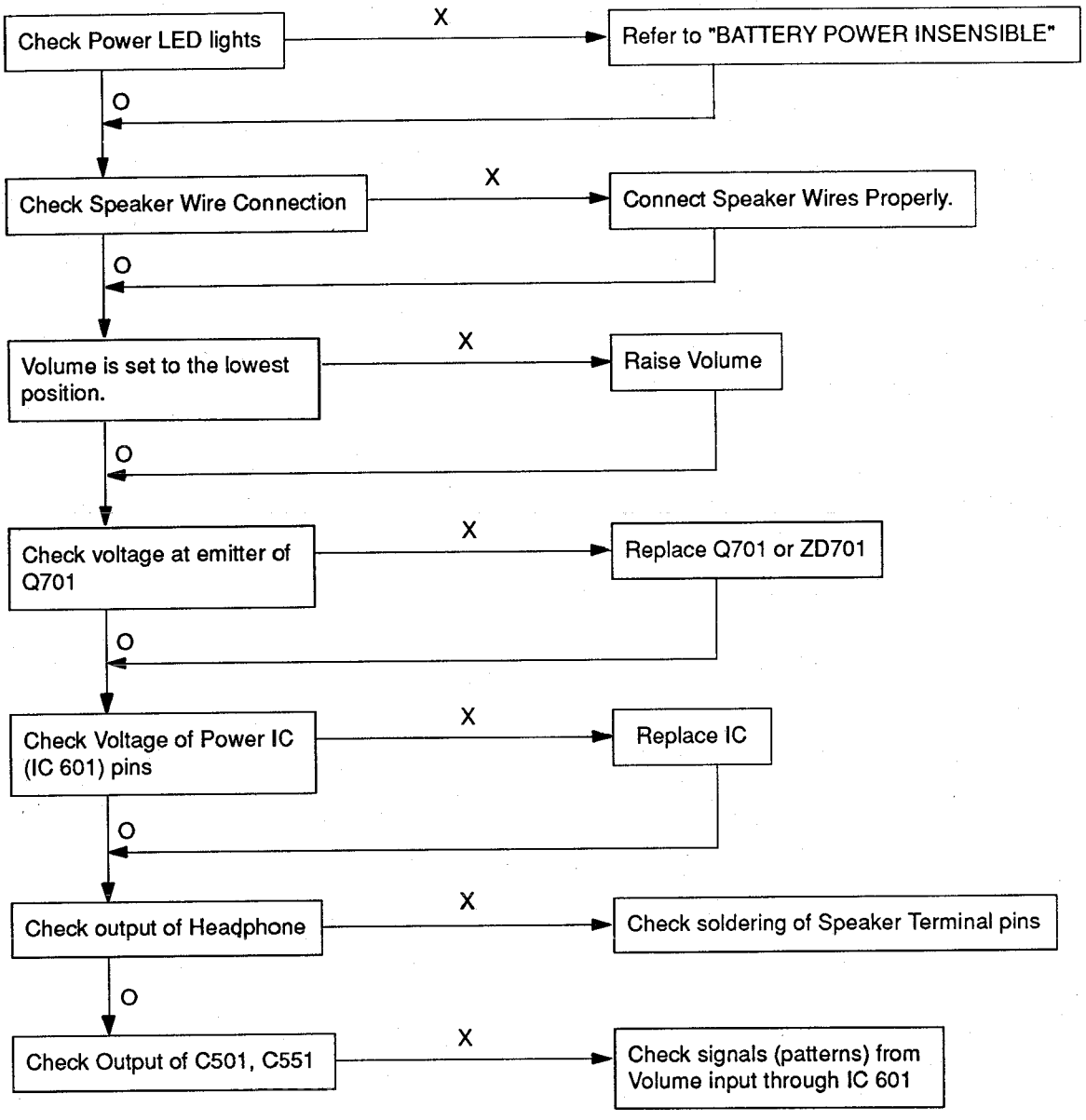
1. AC POWER INSENSIBLE



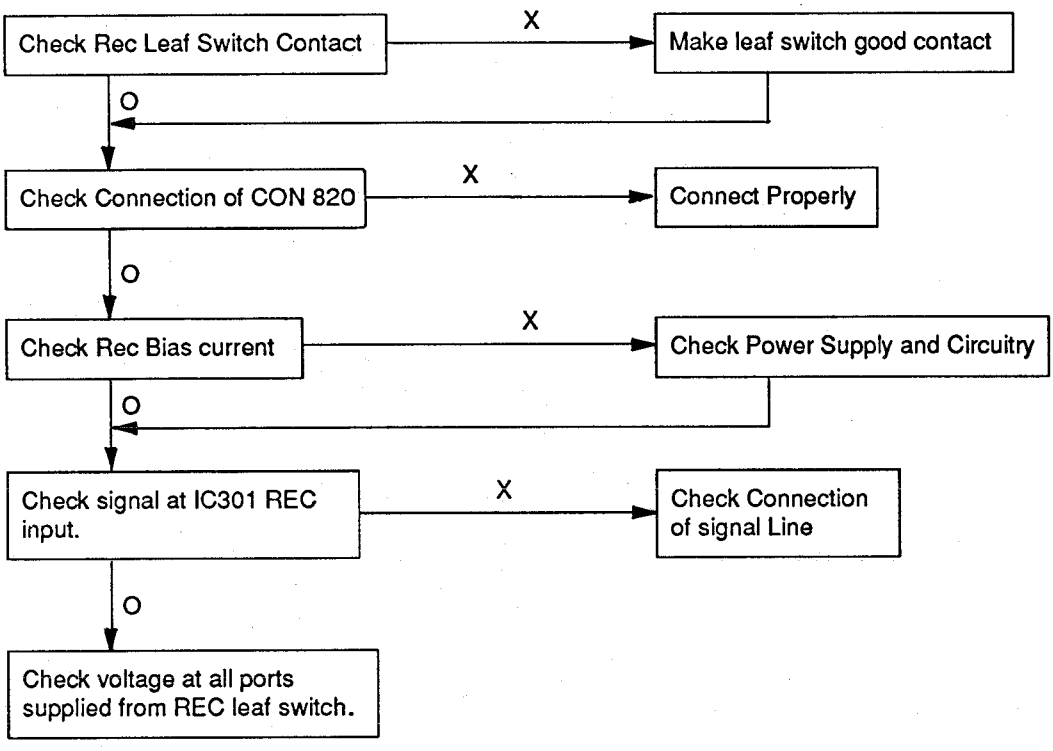
2. BATTERY POWER INSENSIBLE



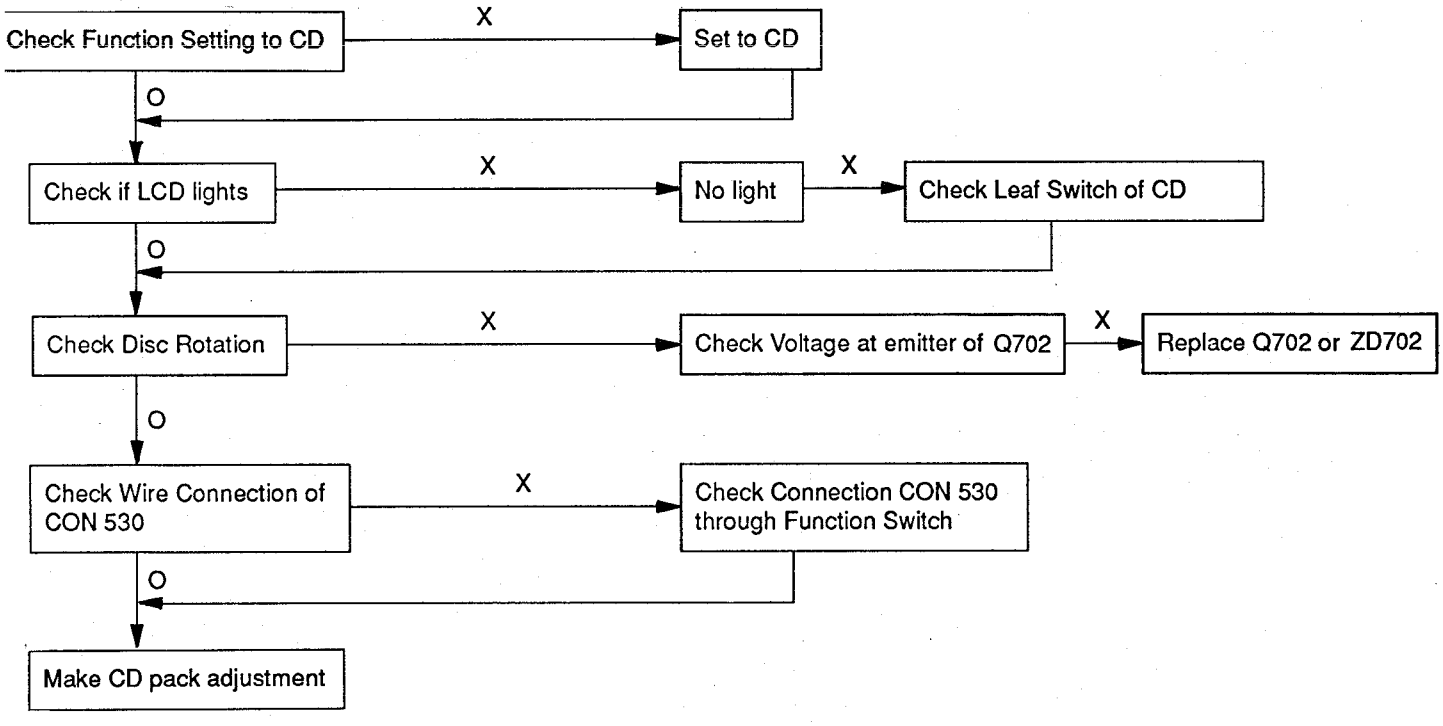
3. NO OUTPUT


Check Power LED lights
X
Refer to "BATTERY POWER INSENSIBLE"
O
Check Speaker Wire Connection
X
Connect Speaker Wires Properly.
O
Volume is set to the lowest position.
X
Raise Volume
O
Check voltage at emitter of Q701
X
Replace Q701 or ZD701
O
Check Voltage of Power IC (IC 601) pins
X
Replace IC
O
Check output of Headphone
X
Check soldering of Speaker Terminal pins
O
Check Output of C501, C551
X
Check signals (patterns) from Volume input through IC 601

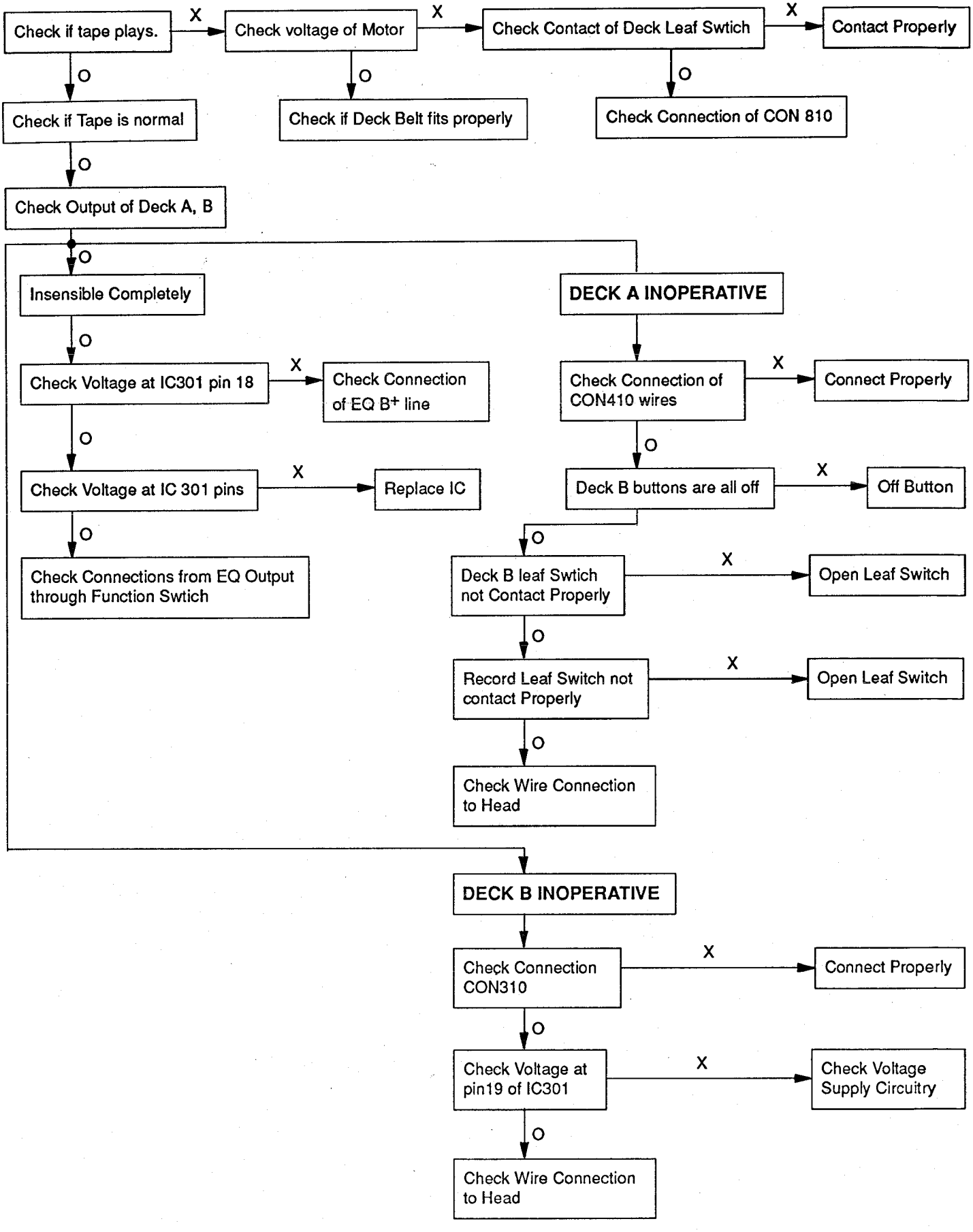
4. RECORD NOT WORKING



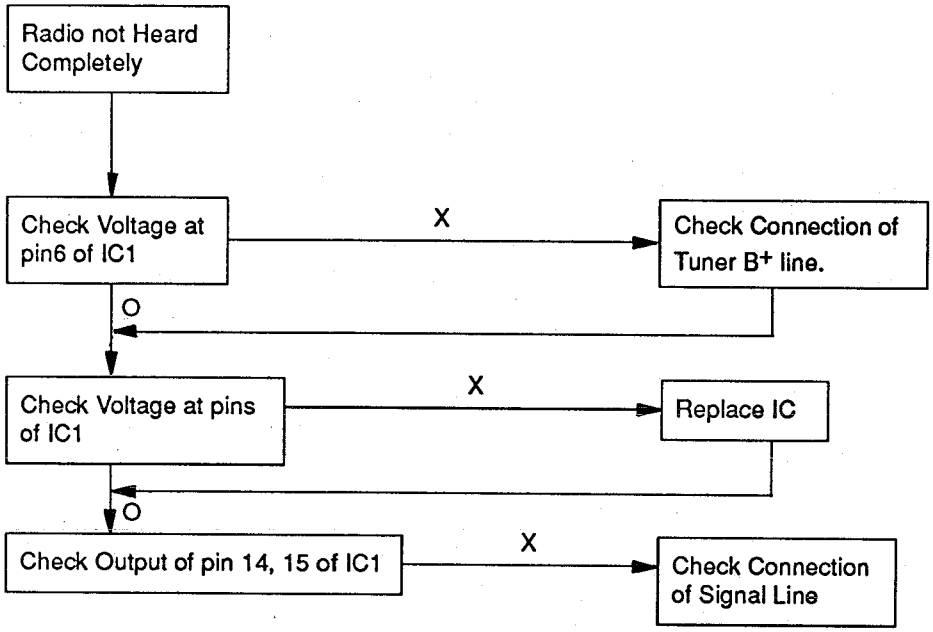
5. COMPACT DISC INOPERATIVE



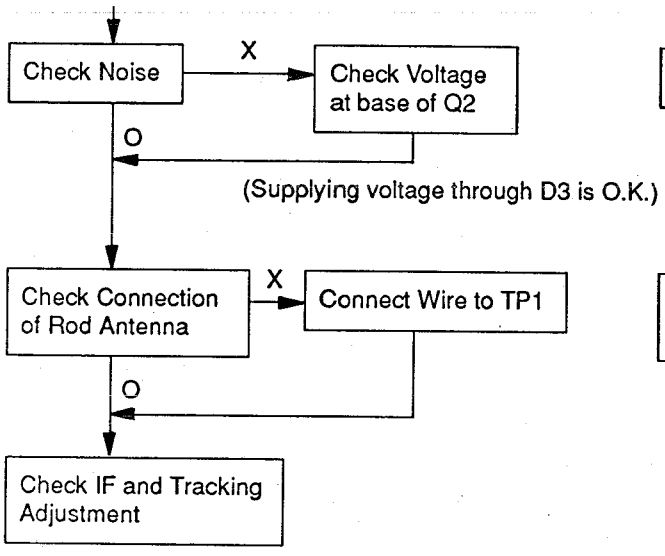
6. TAPE NOT WORKING



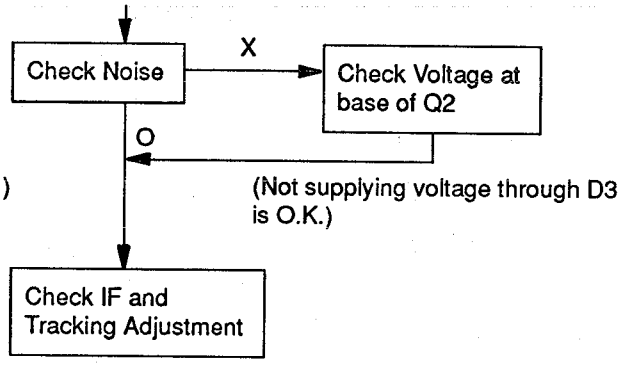
7. RADIO INSENSIBLE



FM INSENSIBLE



AM INSENSIBLE



■ ADJUSTMENT INSTRUCTION

ADJUSTMENT PROCEDURE

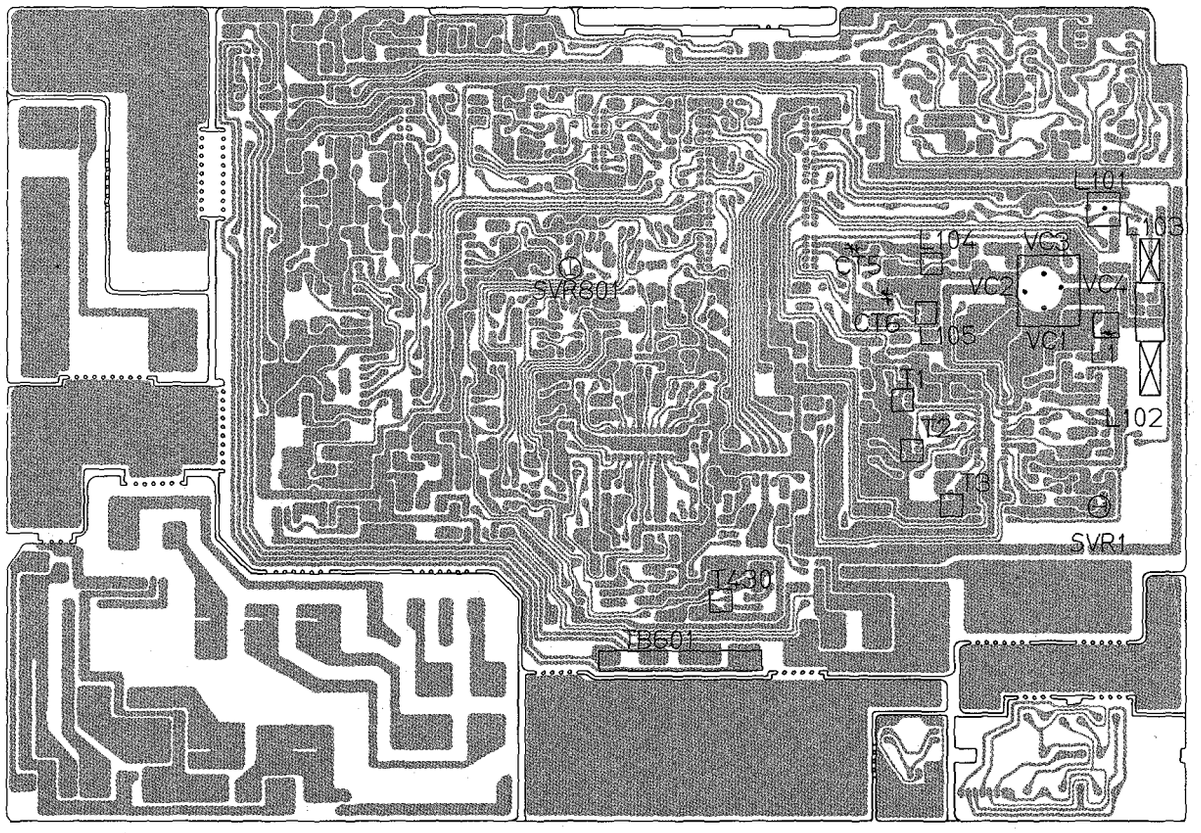
INSTRUMENTS AND TOOLS

1. AM STANDARD SIGNAL GENERATOR
2. FM STANDARD SIGNAL GENERATOR
3. FM/AM IF GENERATOR: 10.7MHZ, 455KHZ (465KHZ)
4. OSCILLOSCOPE
5. OUTPUT METER: LEVEL METER OR AC VOLTMETER.
6. LOOP ANTENNA
7. DUMMY LOAD (4 ohm)
8. SW DUMMY ANT.
9. FREQUENCY COUNTER
10. FM STEREO MODULATOR

IMPORTANTS

1. Check the power source voltage.
2. Select desired Band and Function.
3. Set Tone Control at mid position.
4. Modulate AM to 30% amplitude with 400Hz signal and FM to 22.5MHz deviation with 400Hz signal.
5. Set volume Control to approximately 50mW (4 ohm)

- **LOCATION OF ADJUSTMENT POINT (AUDIO SECTION)**
  MAIN PCB (PARTS SIDE)



■ ADJUSTMENT

1. FM ADJUSTMENT

ITEM	CONNECTION	STEP	S.S.G Frequency	RADIO DIAL SETTING	Adjustment Point	REMARK
IF	Fig. 1	1	10.7MHz	Tune to the Lowest frequency	T1(ORG) FM IFT T3 (BLU or BLK) FM DET	Maximum gain and symmetrical "S" curve.
		2	Repeat step 1 until no further improvement can be made.			
Frequency coverage	Fig. 2	3	87.3MHz	Tune to the Lowest frequency	L1 FM OSC coil	Best resonating point of SSG.
		4	108.3MHz	Tune to the highest frequency	VC1 OSC trimmer (VARICON)	Best resonating point of SSG.
		5	Repeat steps 3 and 4 several times.			
Tracking	Fig. 2	6	90MHz	90MHz	Not required	
		7	106MHz	106MHz	VC2 ANT trimmer (VARICON)	Maximum Output
		8	Repeat steps 6 and 7 to obtain suitable sensitivity at 90MHz and 106MHz.			
Stereo separation	Connect Stereo Generator to S.S.G additionally in Fig. 2	9	98MHz	98MHz	SVR1	Best separation.

FM IF OUTPUT : IC1 (TA8167N) PIN NO. 19

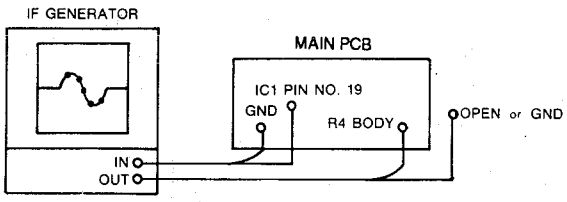


Fig. 1

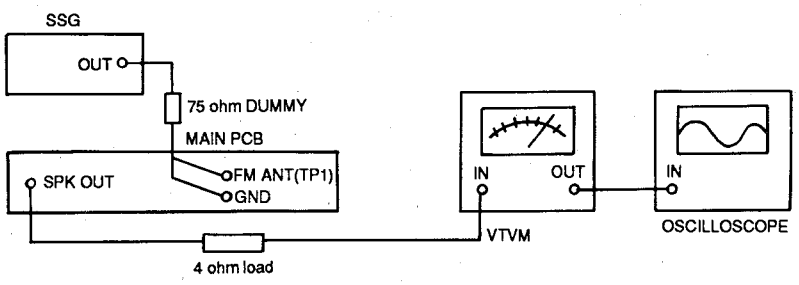


Fig. 2

2. 2 BAND (FM/AM) AM ADJUSTMENT

ITEM	CONNECTION	STEP	S.S.G Frequency	RADIO DIAL SETTING	Adjustment Point	REMARK
IF	Connect FM/AM IF generator to loop ANT Couple the AM ANT coil colse to loop ANT and take out the signal from AM IF out point (IC1 pin No 19) (See Fig. 3)	1	455KHz (465KHz)	Tune to the Lowest frequency	AM IFT T2 (WHT)	Maximum output and best "V" curve
		2	Repeat 1 until no futher improvement can be made.			
AM coverage	Fig. 4	3	510KHz	Tune to the Lowest frequency	AM OSC coil (RED) L104	Best resonating point of SSG
		4	1650KHz	Tune to the highest frequency	AM OSC trimmer VC3 (VARICON)	Best resonating point of SSG
		5	Repeat steps 3 and 4 several times			
AM tracking	Fig. 4	6	600KHz	600KHz	AM ANT coil L102	Maximum output
		7	1400KHz	1400KHz	AM ANT trimmer (VC4) (VARICON)	Maximum output
		8	Repeat steps 6 and 7 to obtain suitable sensitivity at 600KHz and 1400KHz.			

AM IF OUTPUT: IC 1 (TA8167N) PIN NO. 19.

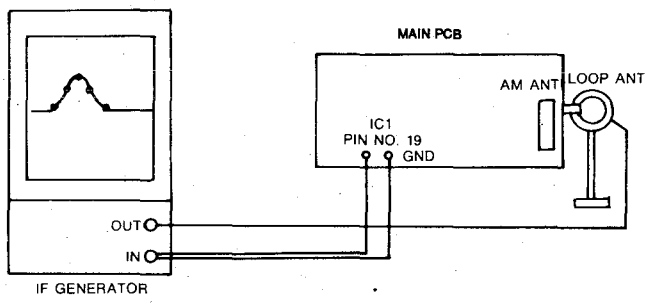


FIG. 3

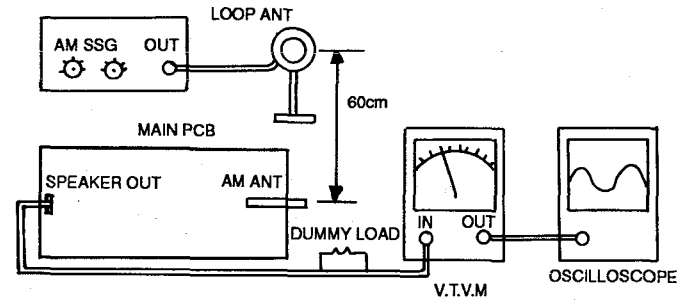


FIG. 4

3. 3 BAND (FM/SW/AM) AM/SW ADJUSTMENTS

ITEM	CONNECTION	STEP	S.S.G Frequency	RADIO DIAL SETTING	Adjustment Point	REMARK
IF	IF is the same as 2 band's					
AM coverage	Fig. 4	1	510KHz	Tune to the Lowest frequency	AM OSC coil (red) L104	Best resonating point of SSG
		2	1650KHz	Tune to the highest frequency	AM OSC trimmer CT5	Best resonating point of SSG.
		3	Repeat steps 1 and 2 several times			
AM tracking	Fig. 4	4	600KHz	600KHz	AM ANT COIL L103	Maximum output
		5	1400KHz	1400KHz	AM ANT trimmer VC4 (VARICON)	Maximum output
		6	Repeat steps 4 and 5 to obtain suitable sensitivity at 600KHz and 1400KHz.			
SW frequency coverage	Connect AM(SW) signal generator to SW ANT terminal (TP1) thru SW dummy ANT and speaker output to VTVM across 4 ohm load. (see Fig, 5 Fig. 6)	7	5.7MHz	Tune to the Lowest frequency	SW OSC COIL L105	Best resonating point of SSG
		8	18.5MHz	Tune to the highest frequency	SW OSC trimmer CT6	Best resonating point of SSG.
		9	Repeat steps 7 and 8 several times			
SW tracking	Fig. 5, Fig. 6	10	7MHz	7MHz	SW ANT coil L101	Maximum output
		11	15MHz	15MHz	NO ADJUSTMENTS	
		12	Repeat steps 10 and 11 to obtain suitable sensitivity at 7MHz and 15MHz.			

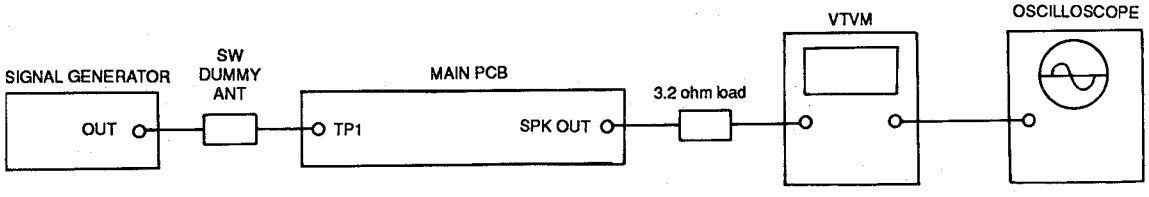


FIG. 5 SW FREQUENCY COVERAGE, TRACKING ADJUSTMENT

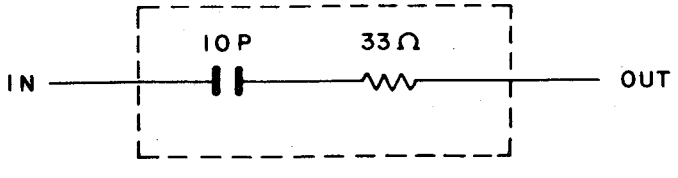


FIG. 6 SW DUMMY ANT

4. 3 BAND (FM/MW/LW) MW(AM)/LW ADJUSTMENTS

ITEM	CONNECTION	STEP	S.S.G Frequency	RADIO DIAL SETTING	Adjustment Point	REMARK
IF	IF is the same as 2 band's					
MW(AM) frequency coverage	Fig. 4	1	510KHz	Tune to the lowest frequency	MW OSC coil L105 (red)	Best resonating point of SSG
		2	1650KHz	Tune to the highest frequency	MW OSC trimmer CT6	Best resonating point of SSG.
		3	Repeat steps 1 and 2 several times			
MW(AM) tracking	Same as 2 band's (see Fig. 4)	4	600KHz	600KHz	MW ANT coil L103	Maximum output
		5	1400KHz	1400KHz	MW ANT trimmer VC4 (VARICON)	Maximum output
		6	Repeat steps 4 and 5 to obtain suitable sensitivity at 600KHz and 1400KHz.			
LW frequency coverage	Fig. 4	7	145KHz	Tune to the lowest frequency	LW OSC coil L104	Best resonating point of SSG
		8	295KHz	Tune to the highest frequency	LW OSC trimmer CT5	Best resonating point of SSG.
		9	Repeat steps 7 and 8 several times			
LW tracking	Fig. 4	10	160MHz	160KHz	LW ANT coil L102	Maximum output
		11	240KHz	240KHz	LW ANT trimmer VC3 (VARICON)	Maximum output
		12	Repeat steps 10 and 11 to obtain suitable sensitivity at 160KHz and 240 KHz.			

5. TAPE SECTION

1. RECORDING BIAS ADJUSTMENT

a) Connect frequency counter to C434 (see Fig. 7) and press the Record button.
b) Adjust T430 (BIAS OSC COIL) until frequency counter reads 53KHz on stereo FM mode.

2. TAPE AZIMUTH ADJUSTMENT

a) Connect the equipments as per Fig. 8 to adjust the tape azimuth with test tape (recorded at 8KHz MTT-113CN).
b) Play the test tape after inserting in DECK A.
c) Adjust the azimuth ajustment screw of left side of record/play head for maximum output and for the same channel phase. (see Fig. 9)
d) Repeat steps a – c at DECK B position.
e) After adjustment, be sure to lock the adjusting screws.

3. TAPE SPEED ADJUSTMENT

a) Connect the equipments as Fig. 8 to adjust the tape speed with test tape [recorded at 3KHz, MTT-111N].
b) Normal speed
   1) Set function Selector to "NORMAL" and press PLAY.
   2) Adjust the semi-fixed resistor (SVR801) so that the frequency counter reads 3KHz.
c) High speed
   1) Insert a test tape into DECK B and set the FUNCTION selector to "HIGH" position.
   2) Press Record (deck A) and PLAY (deck B).
   Then the speed of "HIGH" position is fixed approximately 5400Hz-6600Hz.

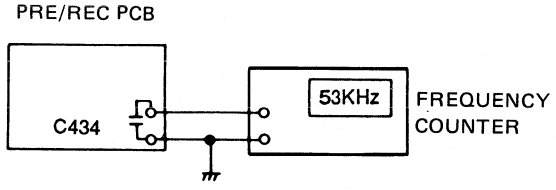


FIG. 7 RECORDING BIAS ADJUSTMENT

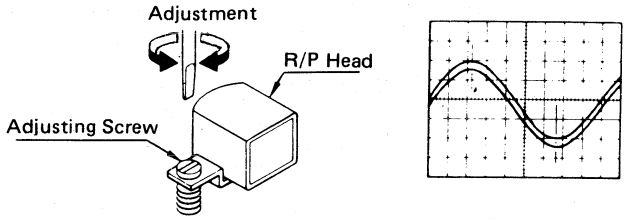


FIG. 9 AZIMUTH ADJUSTMENT

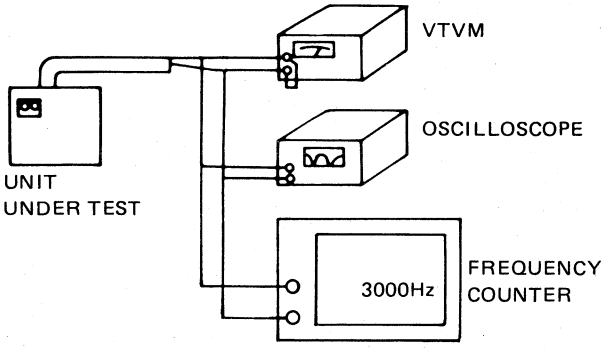


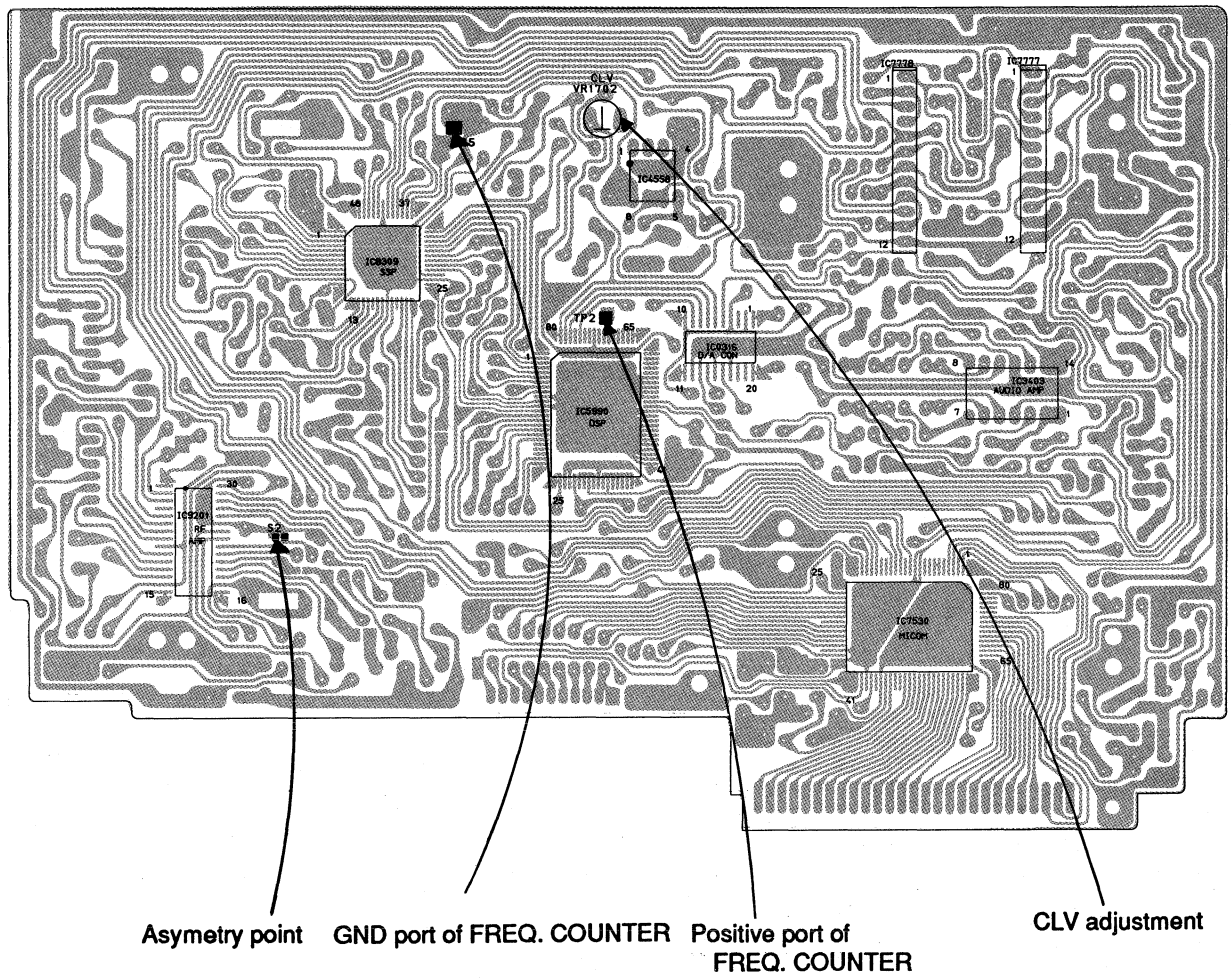
FIG. 8 AZIMUTH. SPEED ADJUSTMENT

■ CD ADJUSTMENT

1) CLV ADJUSTMENT

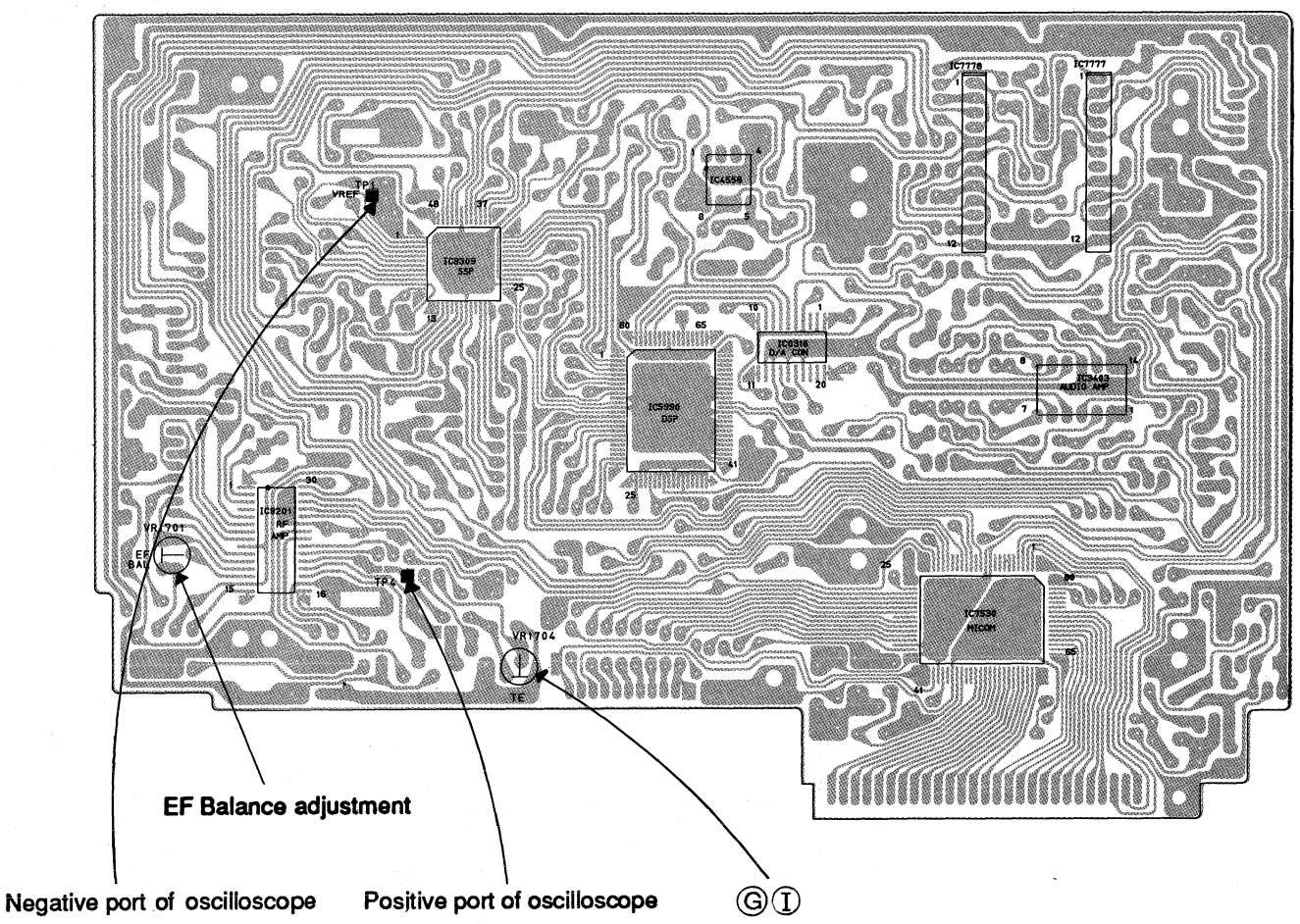
10 : 1 damping probe.

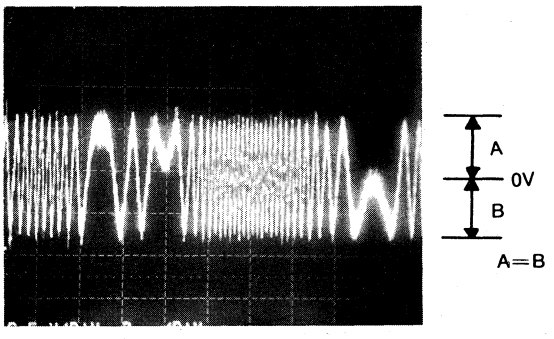
A. Turn power on without loading a disc.
B. Connect S2 (Asymetry ; short)
C. Connect TP5 to GND, TP2 to positive terminal on the Frequency Counter.
D. Adjust VR 1702 so that the Frequency Counter reads 4.460MHz ± (0.01MHz)
E. Disconnect S2



2) EF BALANCE ADJUSTMENT (Power On)

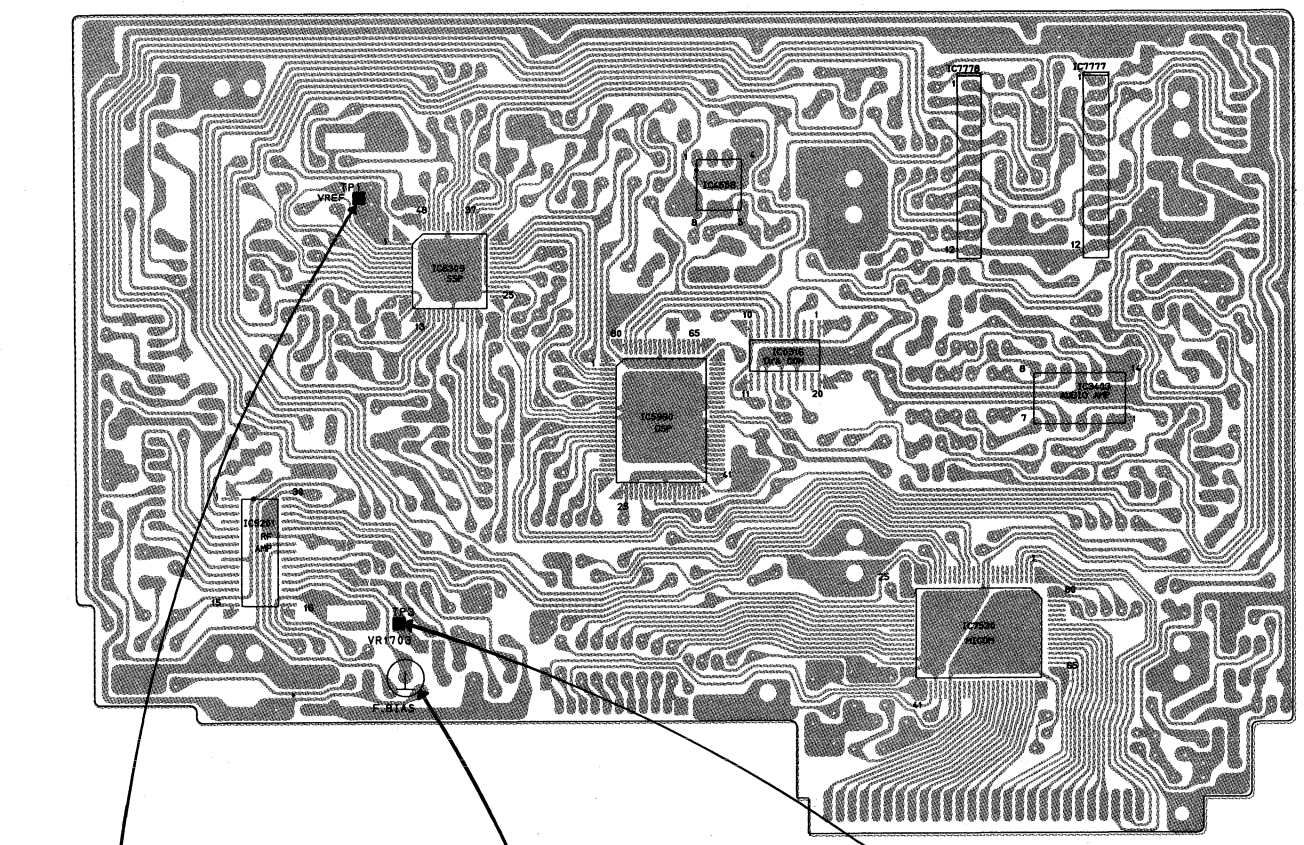
A. Set Oscilloscope Time/Div to 2mS.
B. Set Oscilloscope Volt/Div to 0.5V.
C. Set Oscilloscope range to GND.
D. Set Oscilloscope range to DC after the waveform is adjusted at mid-position on the oscilloscope.
E. Connect TP1 (Vref) to GND and TP4 (T.E) to positive terminal on the oscilloscope.
F. Press PLAY with loading a disc.
G. Turn VR1704 all the way counter clockwise. (Sound comes out abnormally and discontinuously)
H. Adjust VR1701 so that the waveform is equally symmetrical above and below (A = B).
I. Turn VR1704 to play sound normally. (Neary mid-position of VR1704).





3) FOCUS BIAS ADJUSTMENT

A. Turn power on without loading a disc.
B. Set Oscilloscope Vol/Div to DC200mV.
C. Connect TP1 (Vref) to GND and TP3 (F.E) to positive terminal on the oscilloscope.
D. Adjust VR1703 so that the voltage is 200mV DC on the oscilloscope.



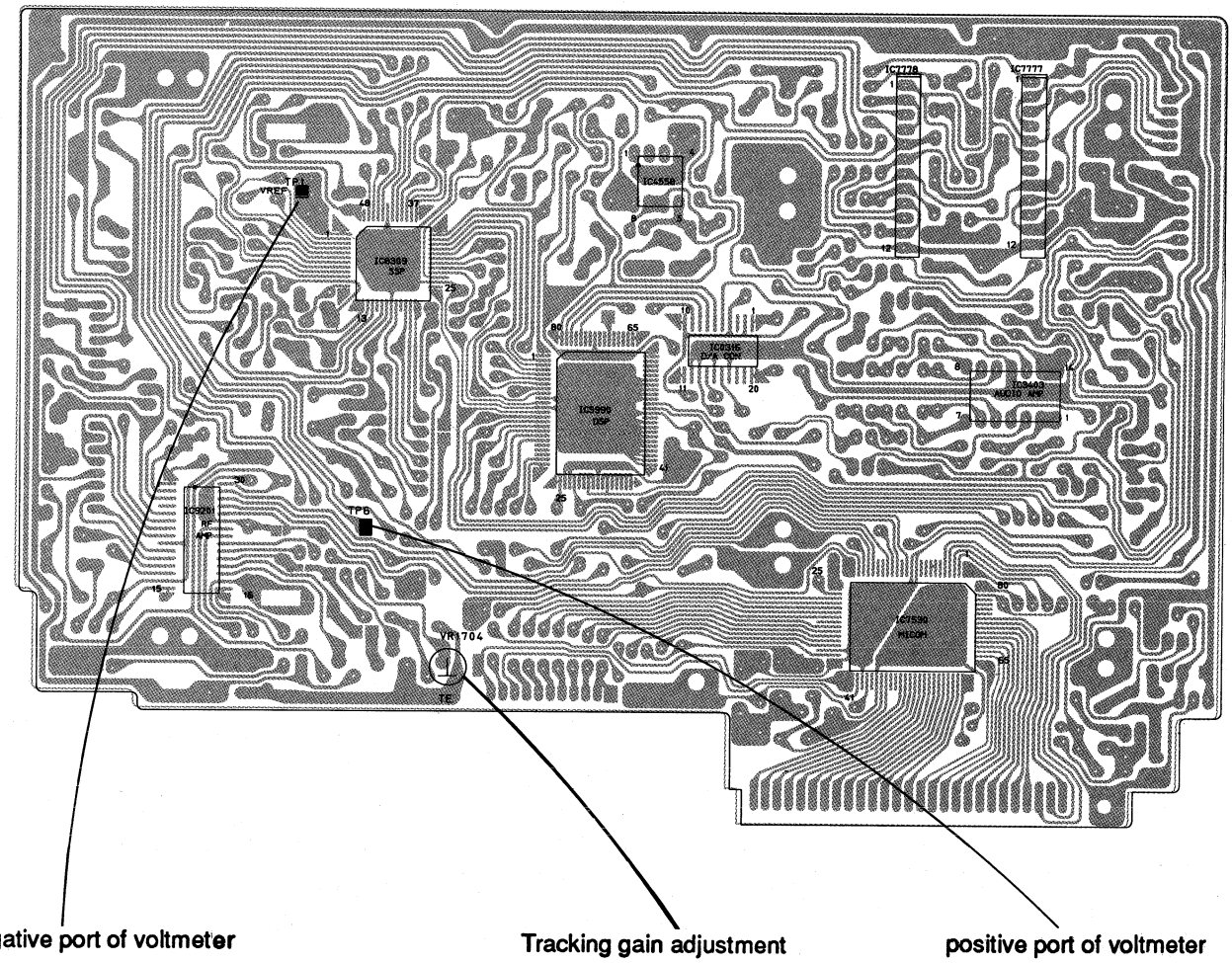
Negative port of oscilloscope

FOCUS bias adjustment

positive port of oscilloscope

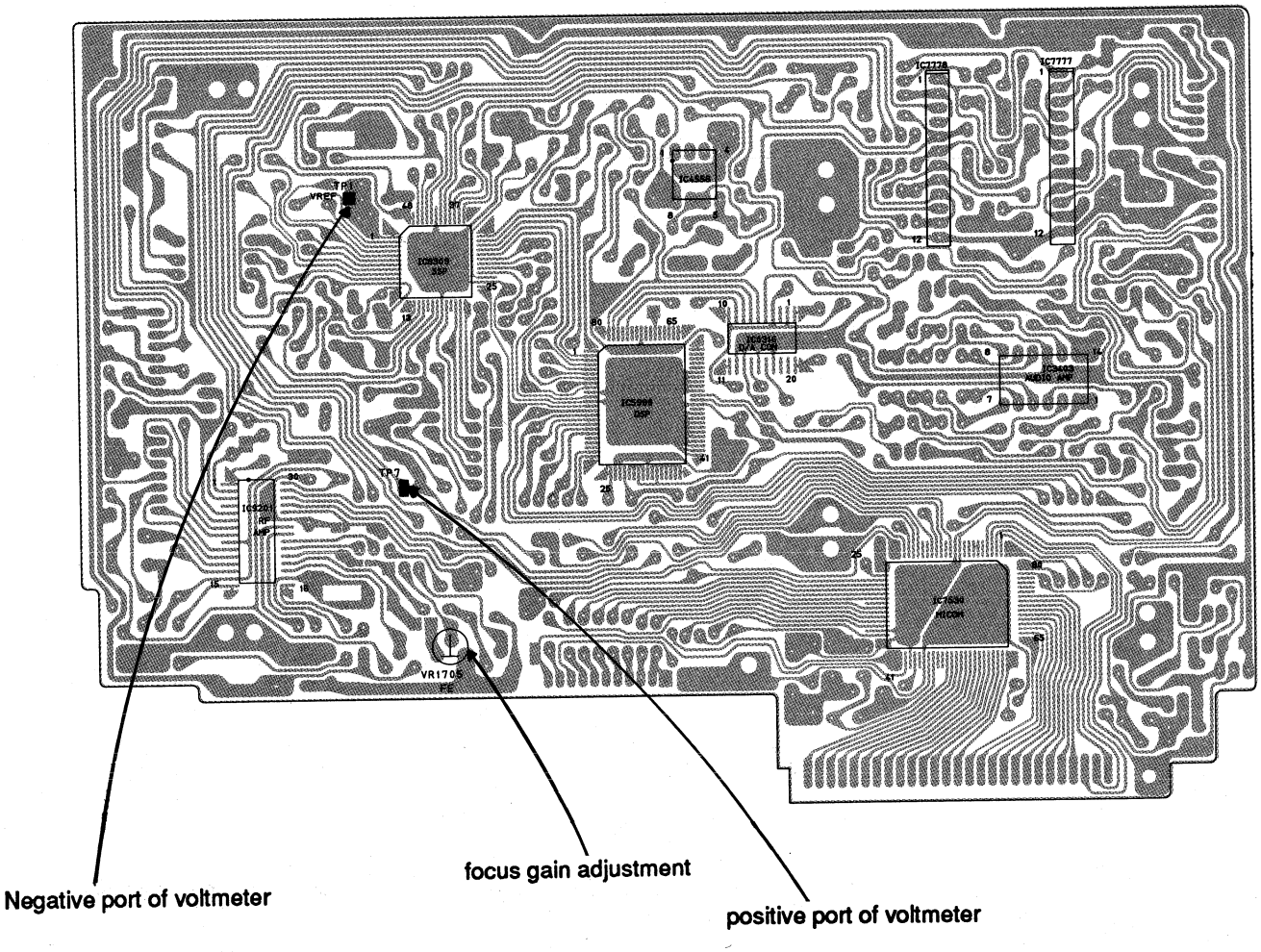
4) TRACKING GAIN ADJUSTMENT (Power On)

A. Connect TP1 (Vref) to GND and TP6 (T.E) to positive terminal on the Volt Meter.
B. Press PLAY with loading a disc.
C. Adjust VR1704 so that the Volt Meter reads 31 ± 0.5mV AC.



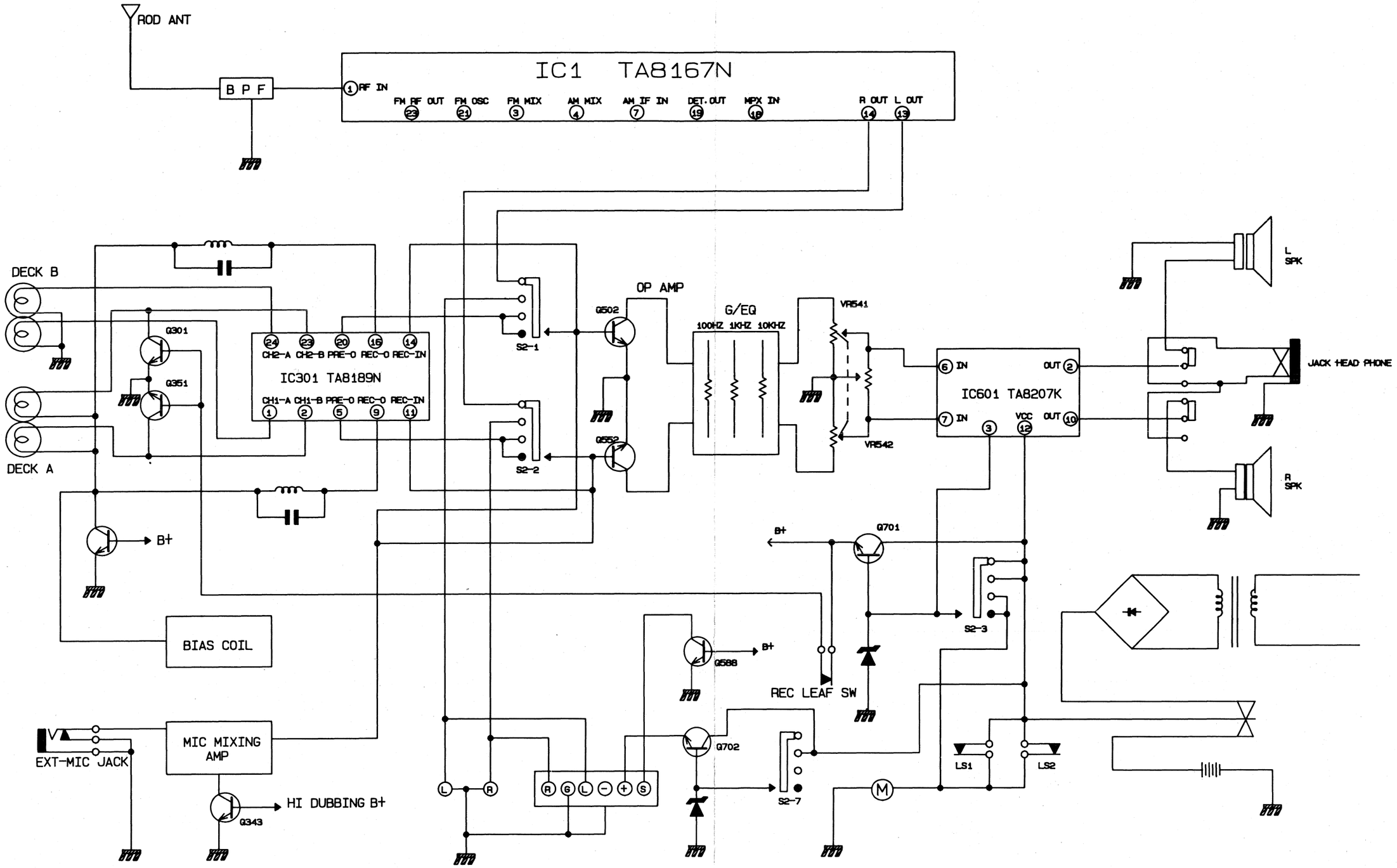
5) FOCUS GAIN ADJUSTMENT (Power ON)

A. Connect TP1 (Vref) to GND and TP7 (F.E) to positive terminal on the Volt Meter.
B. Press PLAY with loading a disc.
C. Adjust VR 1705 so that Volt Meter reads 19 ± 0.5mV AC.



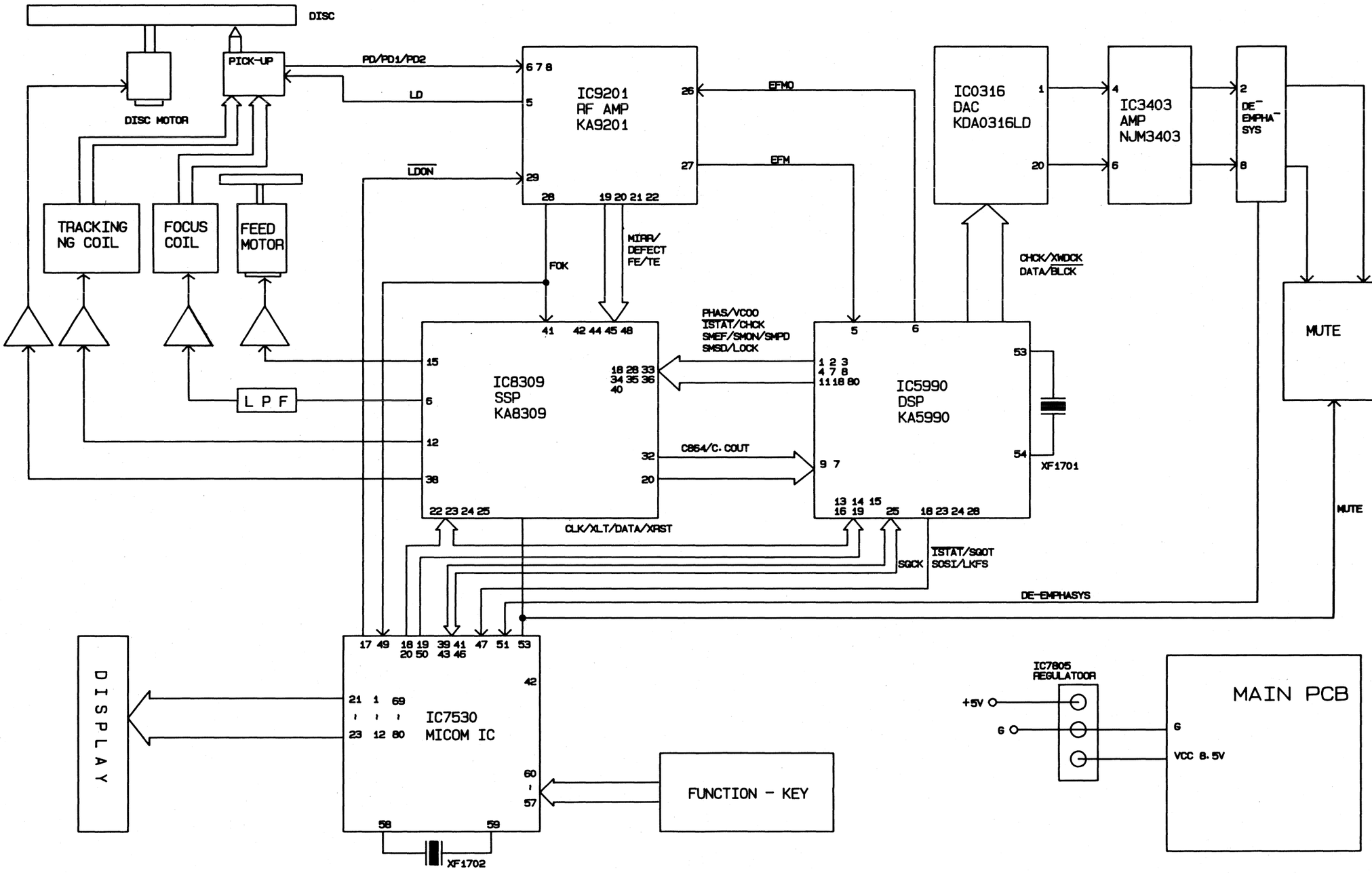
■ BLOCK DIAGRAM

1. RADIO CASSETTE SECTION

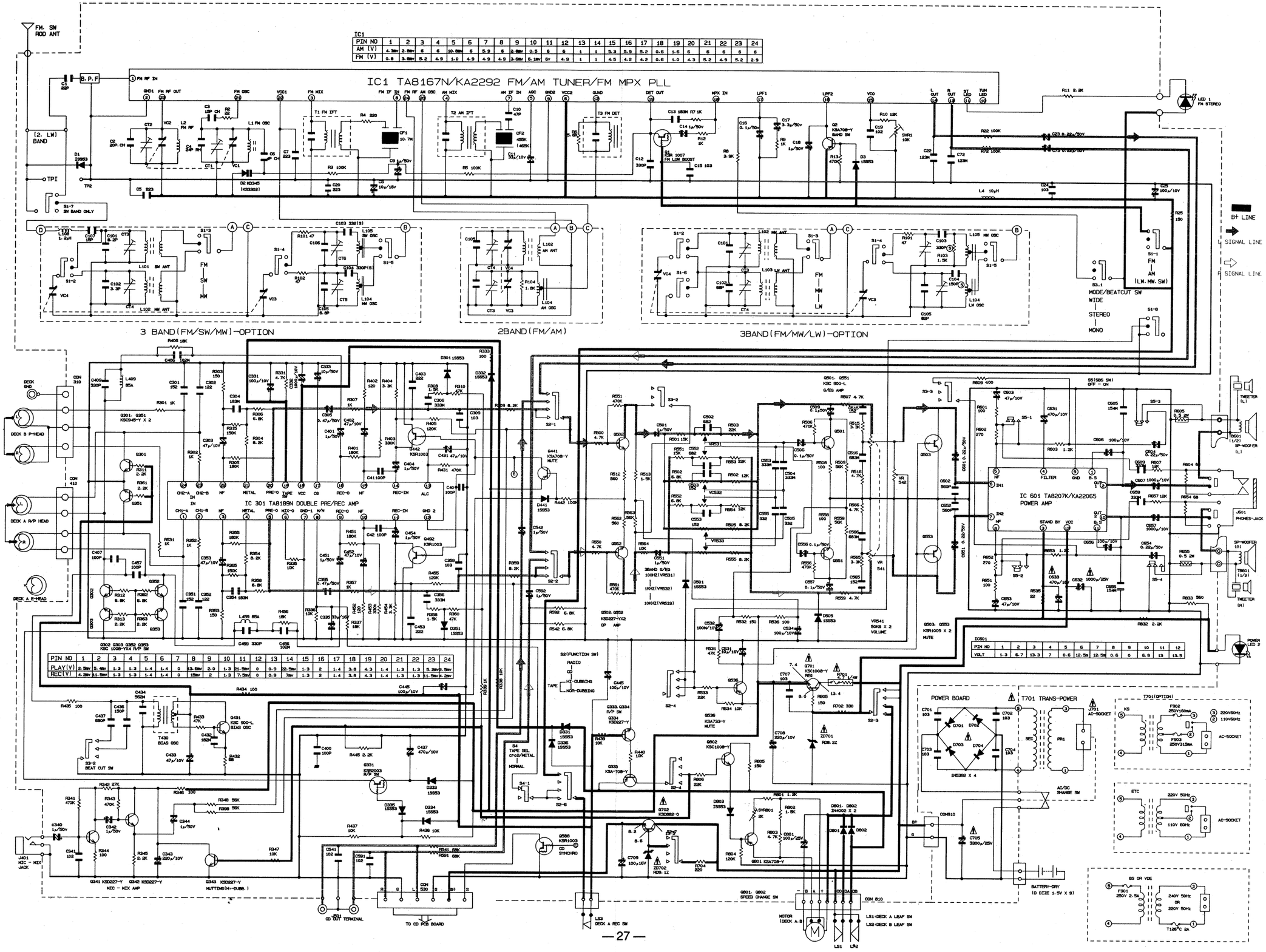


2. CD SECTION

BLOCK DIAGRAM



SCHEMATIC DIAGRAM

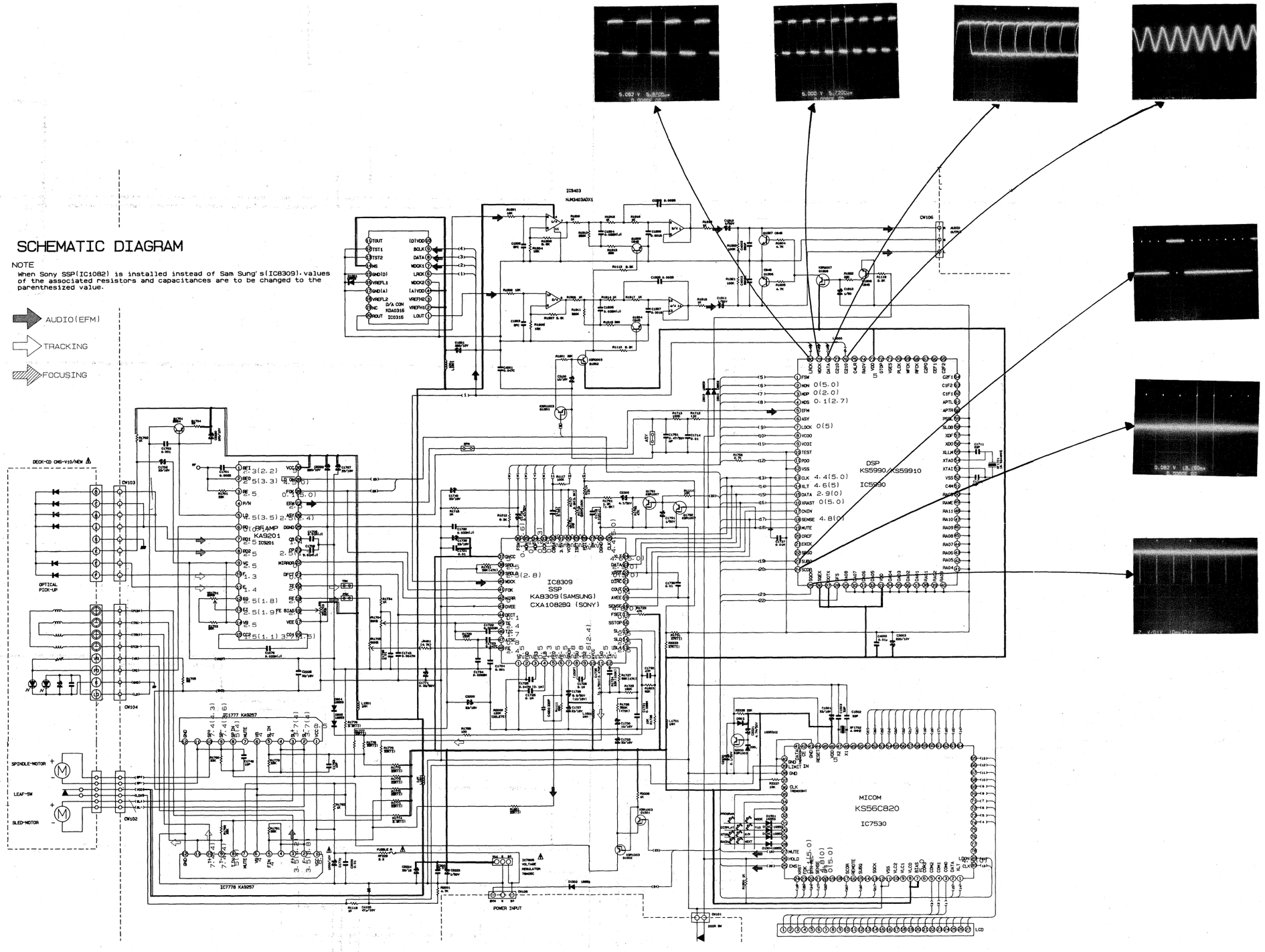


IC1 PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
AM (V)	4.3mV	2.8mV	6	6	10.8mV	6	5.9	6	2.8mV	0.5	6	6	1	1	5.3	5.9	5.2	0.6	1.6	6	6	6	6	6
FM (V)	0.8	3.8mV	5.2	4.9	1.0	4.9	4.9	4.9	3.8mV	5.1mV	6V	4.9	1	1	4.5	4.2	4.2	0.6	1.0	4.3	5.2	4.9	5.2	2.9

PIN NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PLAY(V)	2.5mV	5.4mV	1.3	1.3	1.4	1.4	0	13.6mV	2.0	1.3	21.5mV	0	0.9	92.5mV	1.3	2	1.4	3.8	4.3	1.4	1.3	1.3	5.2mV	2.5mV
REC(V)	4.2mV	11.5mV	1.3	1.3	1.4	1.4	0	15mV	2	1.3	7.5mV	0	0.9	7mV	1.3	2	1.4	3.8	4.3	1.4	1.3	1.3	11.5mV	4.2mV

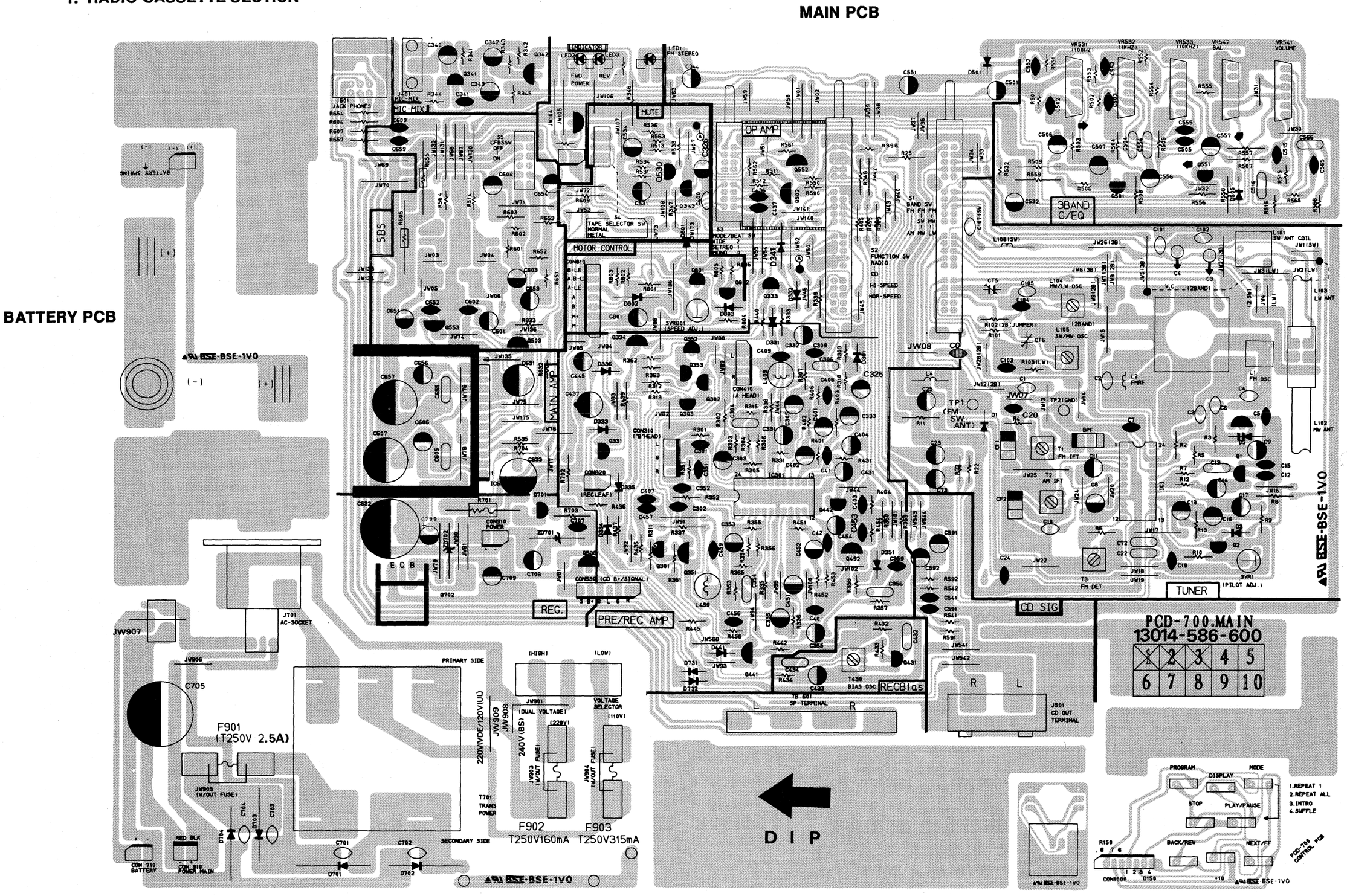
IC501 PIN NO	1	2	3	4	5	6	7	8	9	10	11	12
VOLT	1.3	6.7	13.3	7	0.6	12.5m	12.5m	0.6	0	6.9	13	13.5

2. CD SECTION

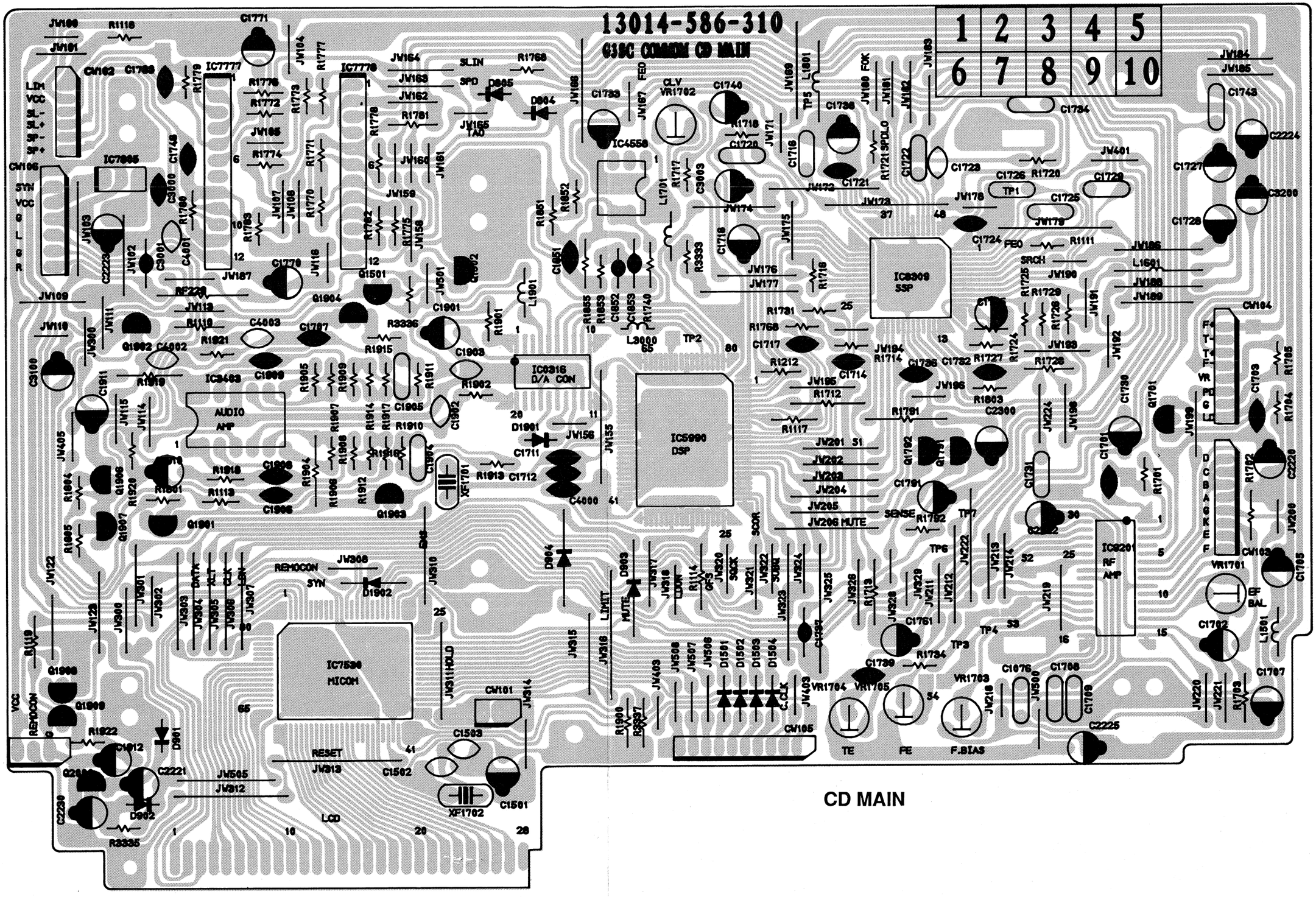

SCHEMATIC DIAGRAM
NOTE
When Sony SSP(IC1082) is installed instead of Sam Sung's(IC8309).values of the associated resistors and capacitances are to be changed to the parenthesized value.
AUDIO(EFM)
TRACKING
FOCUSING
IC8309
SSP
KA8309(SAMSUNG)
CXA1082BQ (SONY)
DSP
KS5990/KS59910
IC5990
MICOM
KS56C820
IC7530
OPTICAL PICK-UP
SPINDLE-MOTOR
LEAF-SW
SLED-MOTOR
POWER INPUT
LCD

■ PCB PATTERN & MARKING DIAGRAM

1. RADIO CASSETTE SECTION



2. CD SECTION


13014-586-310
G3SC COMMON CD MAIN
1 2 3 4 5
6 7 8 9 10
IC7777
IC7778
IC7805
IC4558
IC8309 SSP
IC5990 DSP
IC6316 D/A CON
IC7536 MICOM
IC9201 RF AMP
AUDIO AMP
IC3403
REMOCON
SYN
SLIN
SPD
TAD
CLV
FEO
TEO
FOK
SPDLO
SENSE
SRCH
RESET
LCD
SCOR
MUTE
L.MUT
TE
FE
F.BIAS
TP1
TP2
TP3
TP4
TP5
TP6
TP7
VR1701
VR1702
VR1703
VR1704
VR1705
CW101
CW102
CW103
CW104
CW105
CW106
XF1701
XF1702
D901
D902
D903
D904
D905
D906
D1901
D1902
Q1501
Q1901
Q1902
Q1903
Q1904
Q1905
Q1906
Q1907
Q1908
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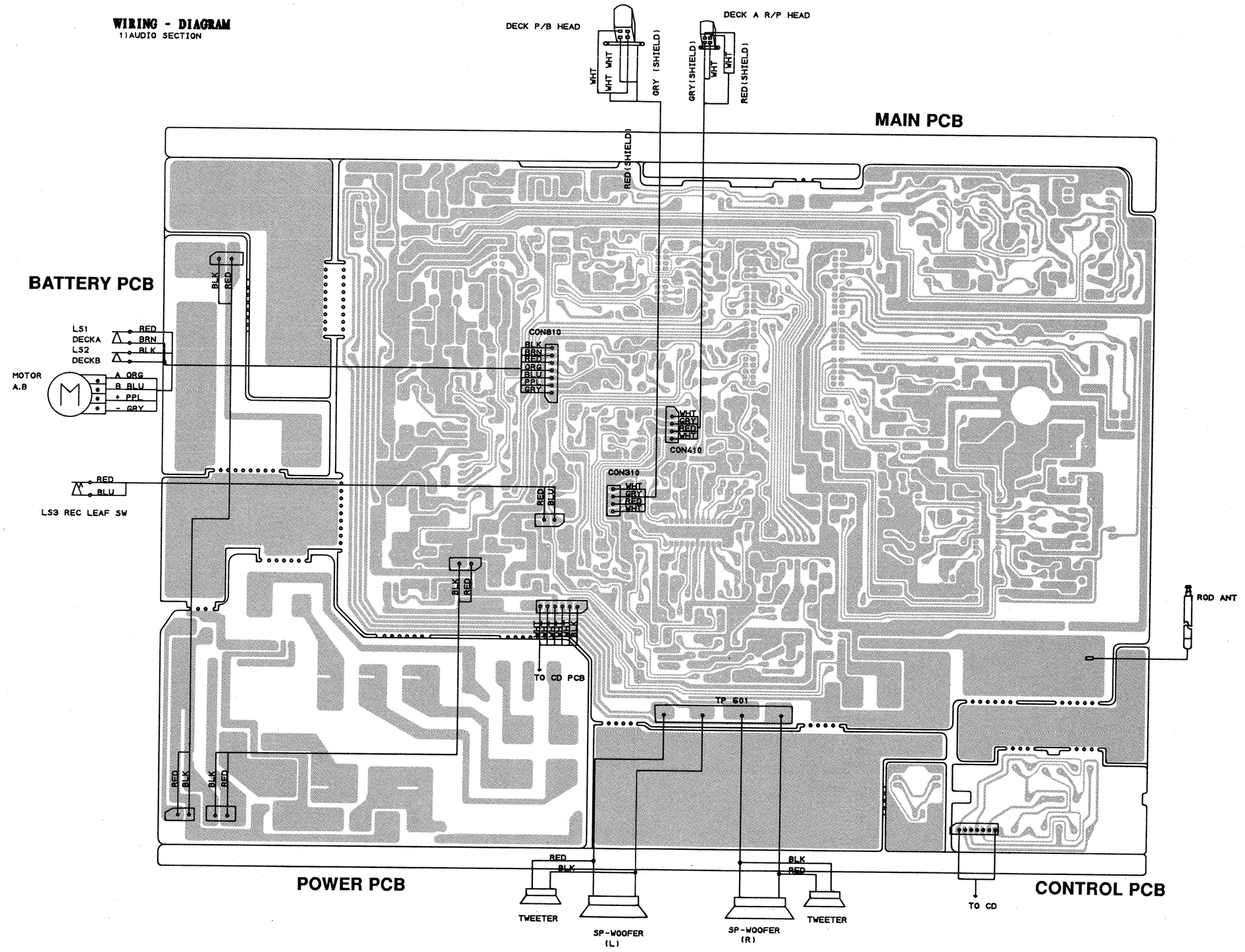
Q1926
Q1927
Q1928
Q1929
Q1930
Q1931
Q1932
Q1933
Q1934
Q1935
Q1936
Q1937
Q1938
Q1939
Q1940

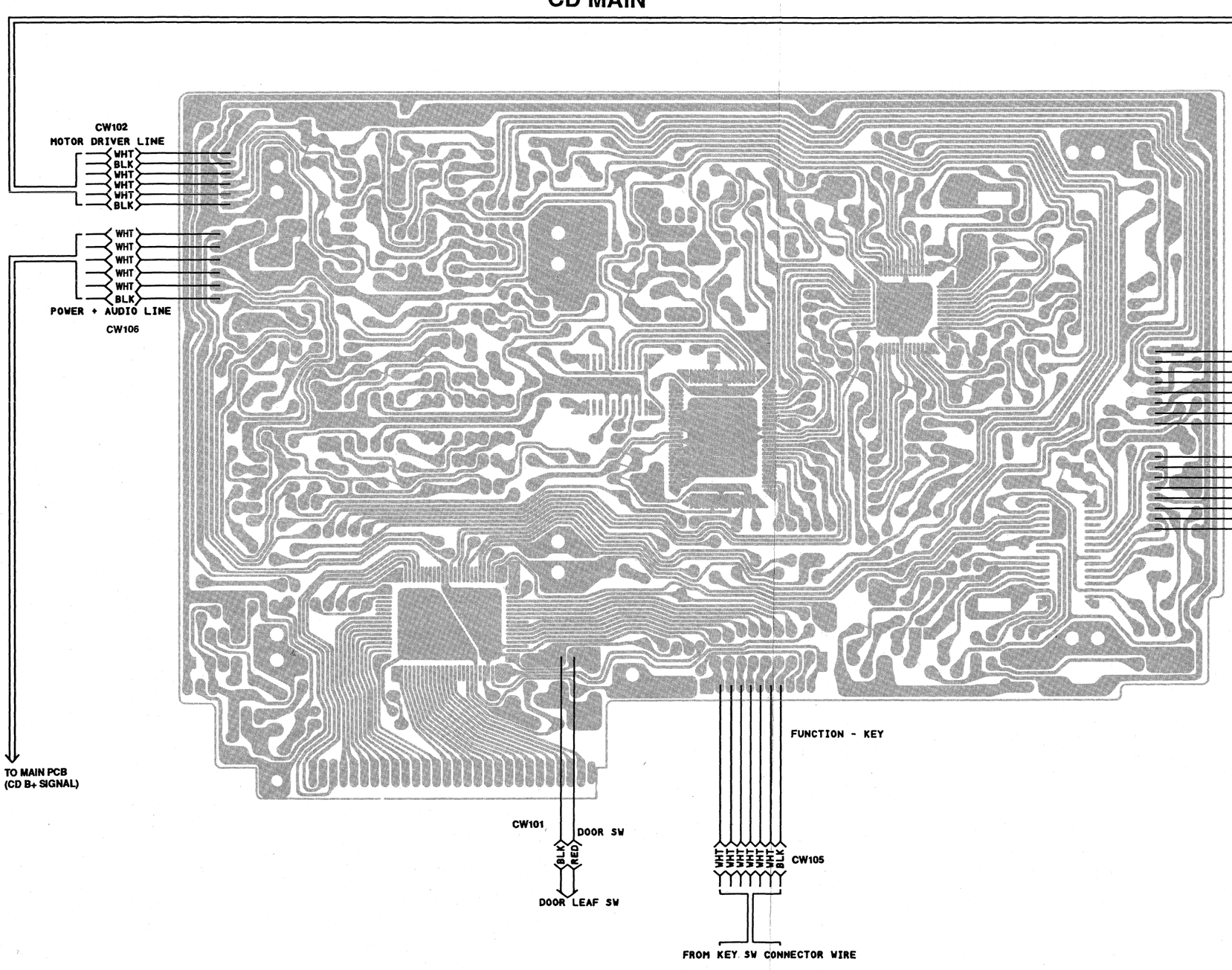
■ WIRING DIAGRAM

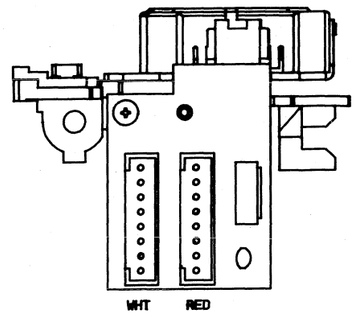
1. RADIO CASSETTE SECTION



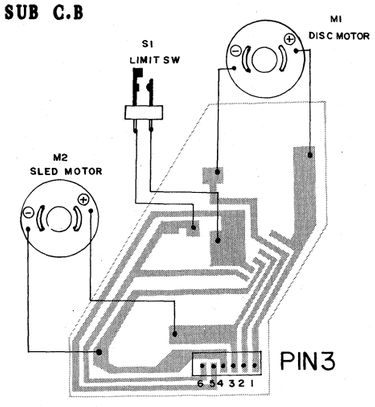
2 CD SECTION

CD MAIN





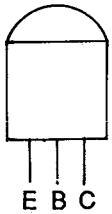
CD SUB C.B



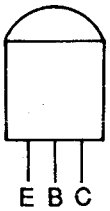
CD PICK-UP PCB

IC AND TR LEAD LAY OUT

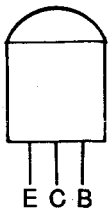
1. RADIO CASSETTE SECTION



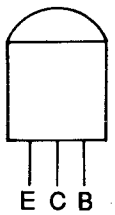
PNP
KSA 708-Y
KSA 733-Y



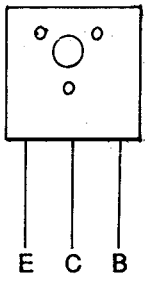
NPN
KSC1008-Y
KSC 900-L
KSC 945-Y
KSD 227-Y



NPN
KSR1007
KSR1009
KSR1003

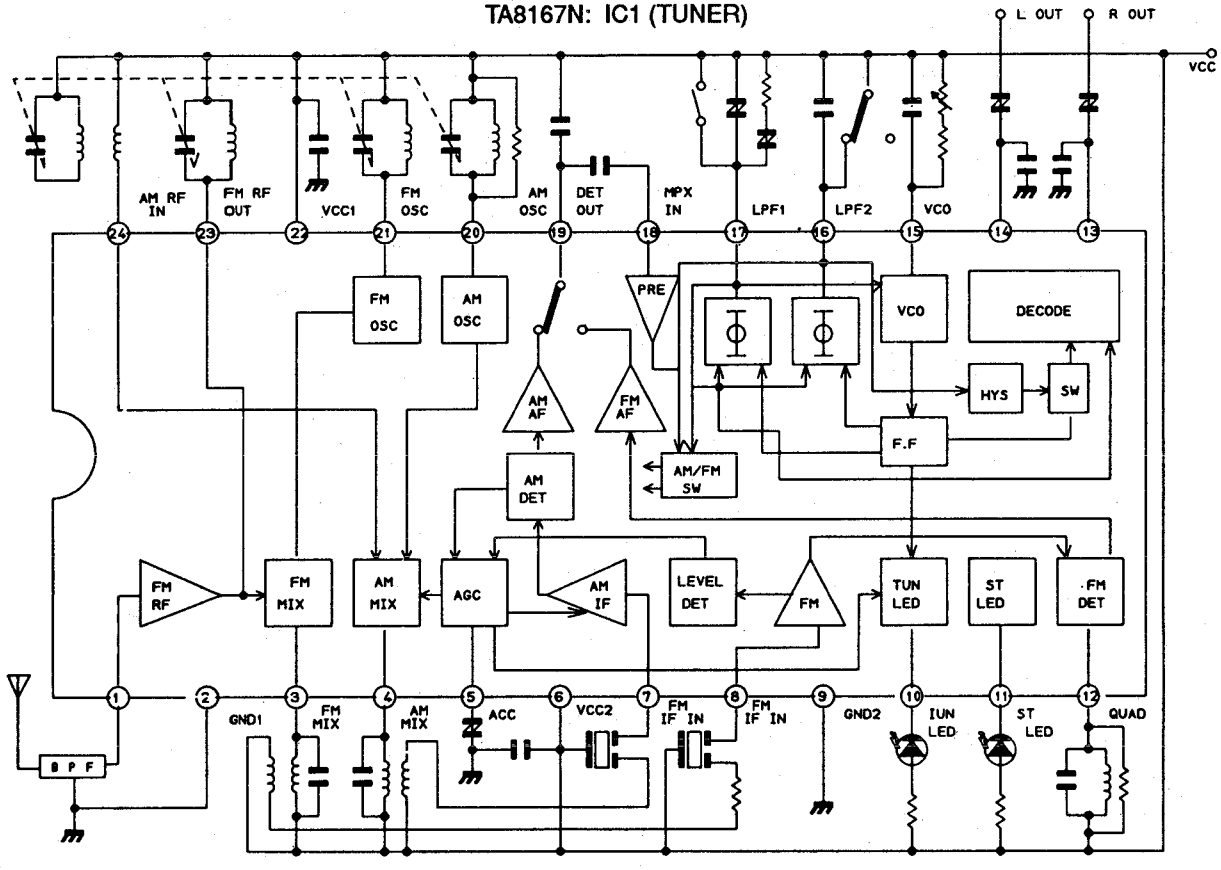


PNP
KSR2003

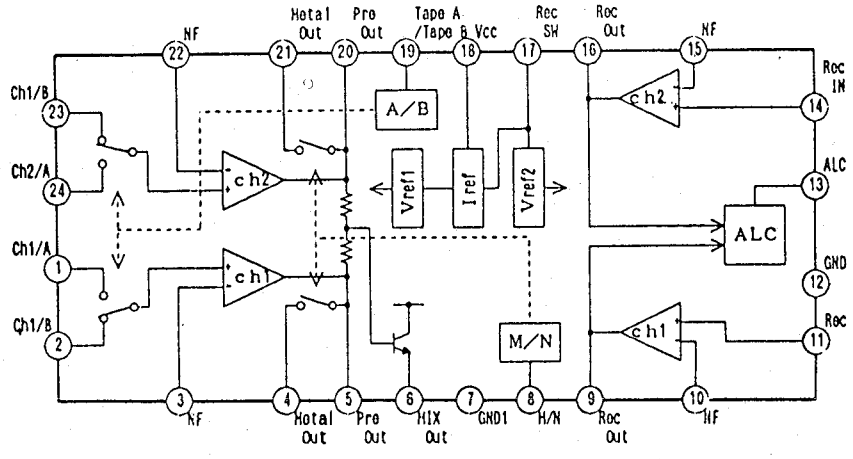


NPN
KSD 882-O

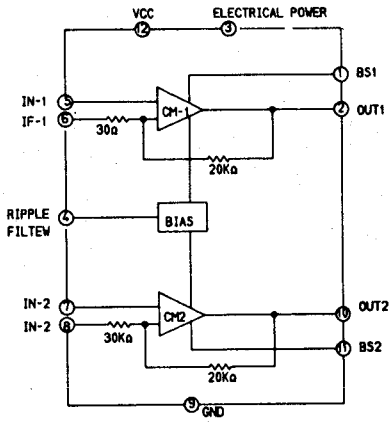
TA8167N: IC1 (TUNER)



TA8189N: IC301 (PRE/REC AMP)

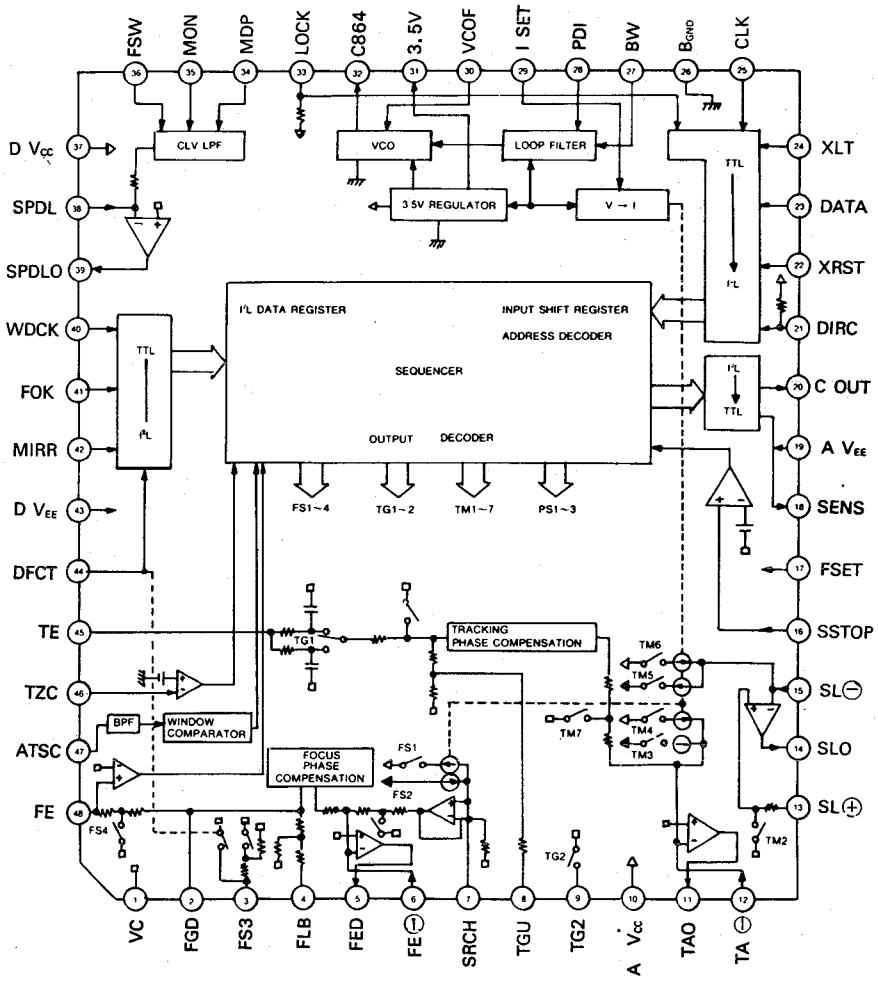


TA8207K: IC601 (POWER AMP)

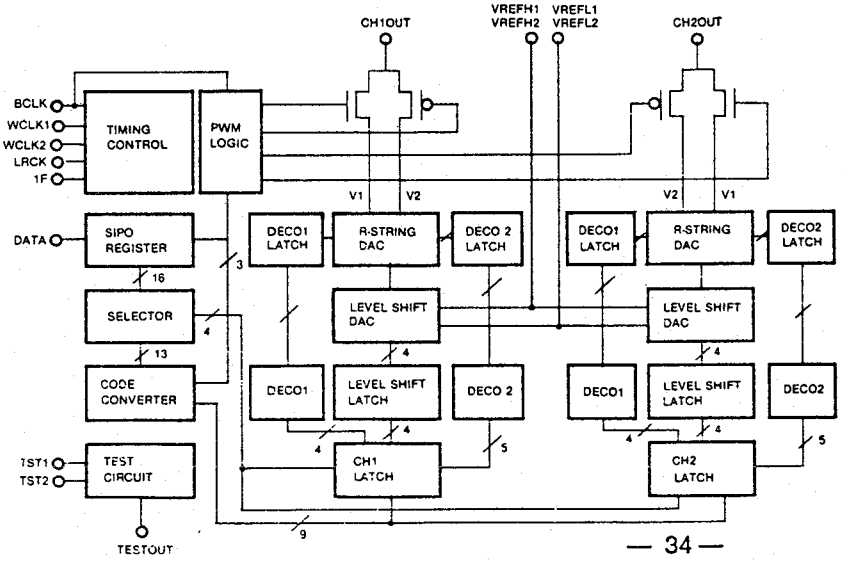


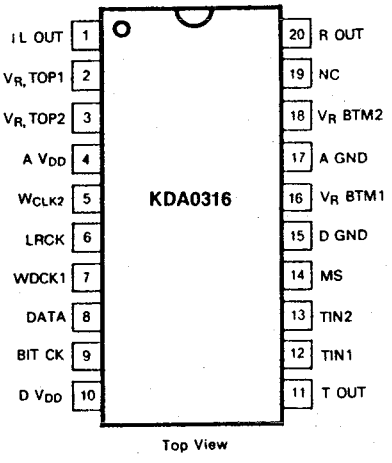
2. COMPACT DISC SECTION

- KA8309 (SERVO SIGNAL PROCESSOR) : IC8309

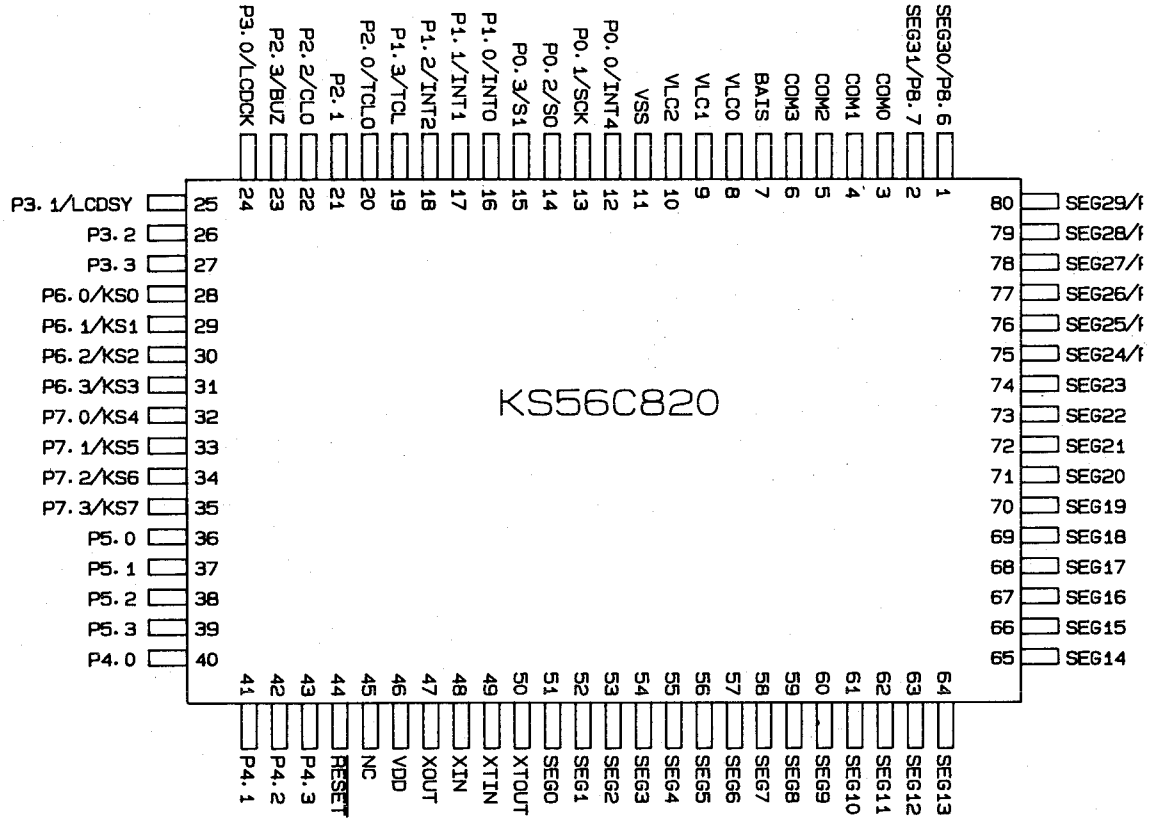


- KDA0316LD (D/A CONVERTOR) : IC0316



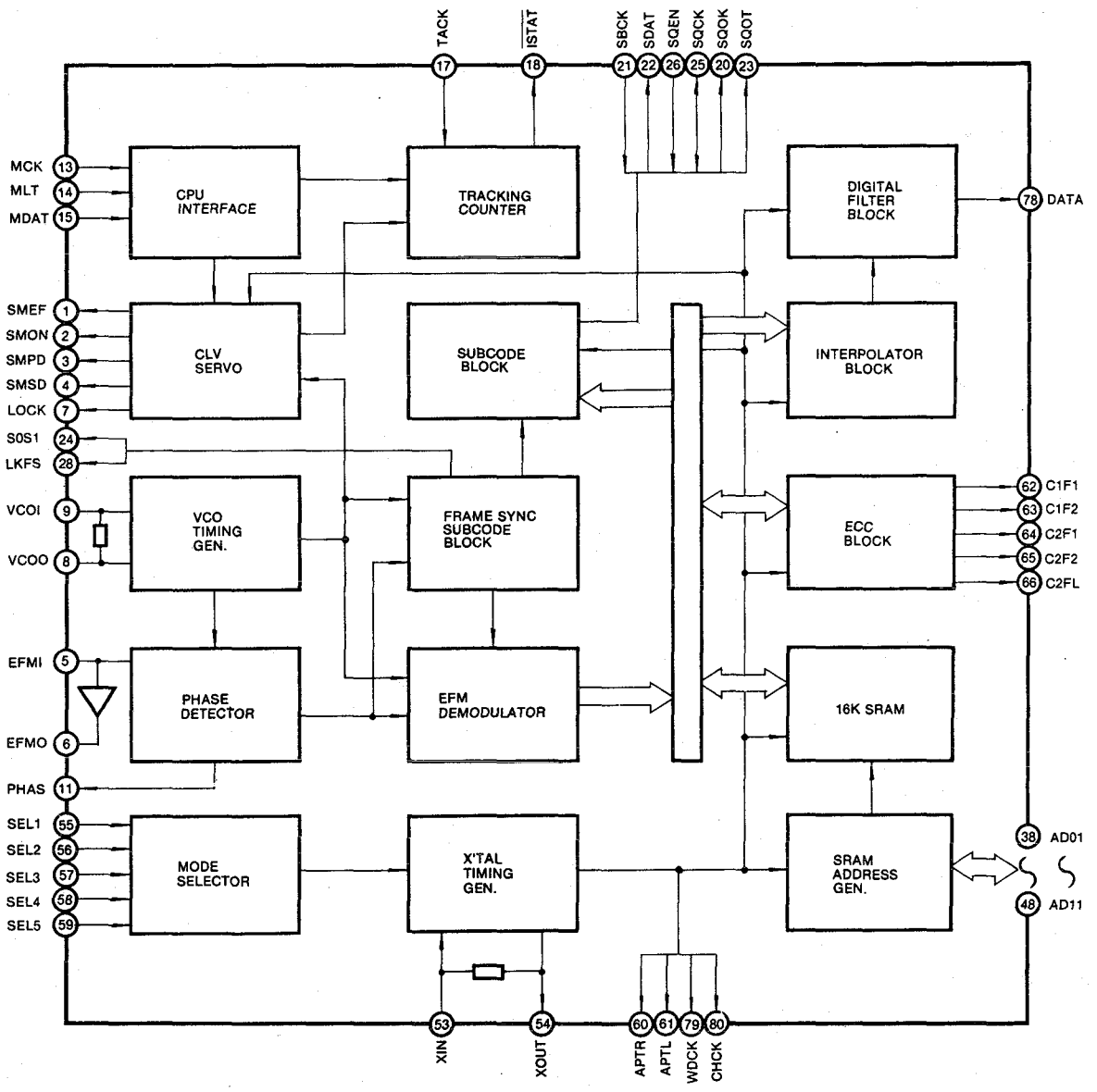


● KS56C820 (MICOM) : IC7530



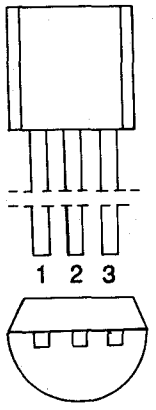
Pin Name	Pin Description	
P1.0-P1.3	4-bit Input	Internal pull-up resistor can be specified in 4-bit unit by solftware
P2, P7	4-bit Input/Output	
P3, P6	I/O mode selectable in 1-bit unit by softwarde	
P4, P5	4-bit input/output, N-ch open drain	
P8.0-P8.7	Outputs in 1-bit unit (shared with segment outputs)	
SEG0-SEG23	Segment output for LCD display	
SEG24-SEG31	Segment output for LCD display (shared with Port 8)	
COM0-COM3	Common signal output for LCD display	
VLC0-VLC2	LCD power supply pin	
BIAS	LCD power supply control pin for 3/5V operating	
LCDCK	LCD clock output for display expansion	
LCDSY	LCD sync. clock output for display expansion	
TCL	Timer/Counter external clock input	
TCLO	Timer/Counter clock output	
INT0, 1, 2, 4	External interrupt input	
CLO	Clock output	
BUZ	2KHz clock output for buzzer	
KS0-KS7	Semi-interrupt input detecting external falling edge	
SCK, SI, SO	SCK: serial clock, SI: serial input, SO: serial output	
X_{IN}, X_{OUT}	Crystal/Ceramic or RC clock I/O for Main-system clock	
XT_{IN1} XT_{OUT}		

- KS5990 (DIGITAL SIGNAL PROCESSOR) : IC5990



TRANSISTOR

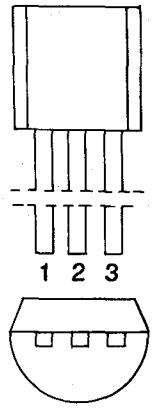
KSR1003
KSR2003
KSR1007
KSR2007



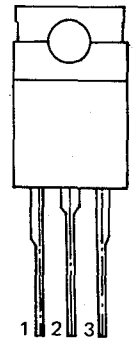
1. EMITTER 2. COLLECTOR 3. BASE

TRANSISTOR

KSC945
KSB564

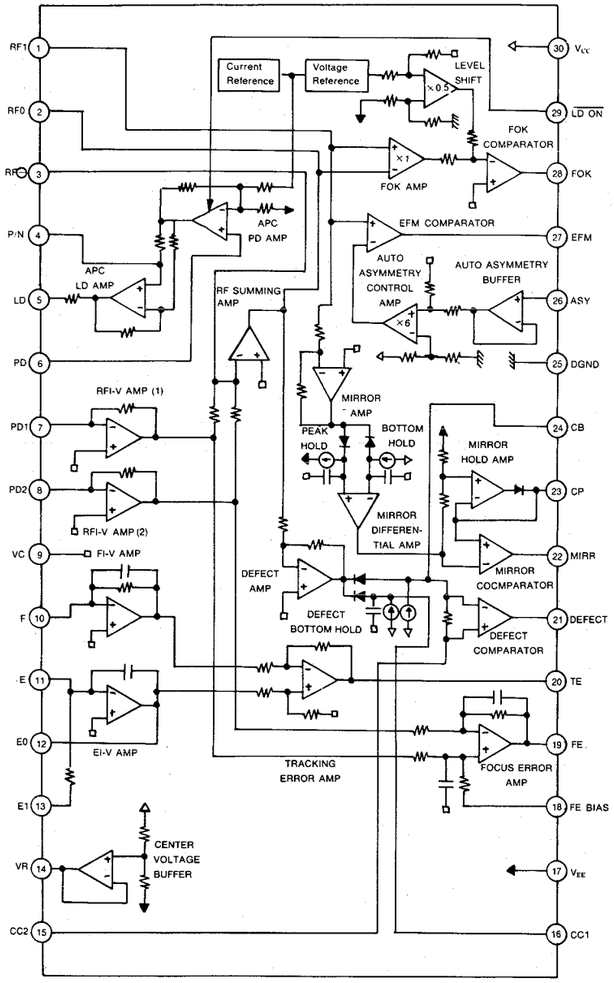


1. EMITTER 2. BASE 3. COLLECTOR

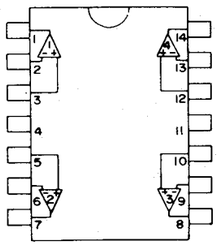


MC78M05C: IC7805 (VOLTAGE REGULATOR)
1. INPUT 2. GND 3. OUTPUT

- KA9201 (RF AMP) : IC9201



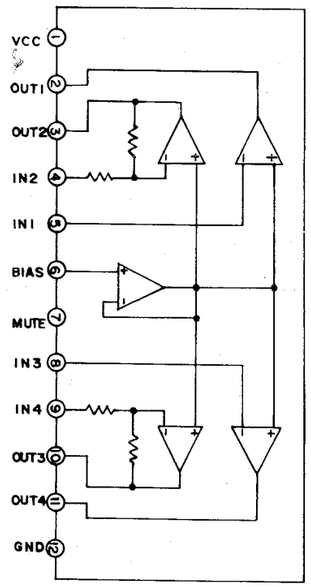
- NJM3403AD (OP AMP) : IC3403



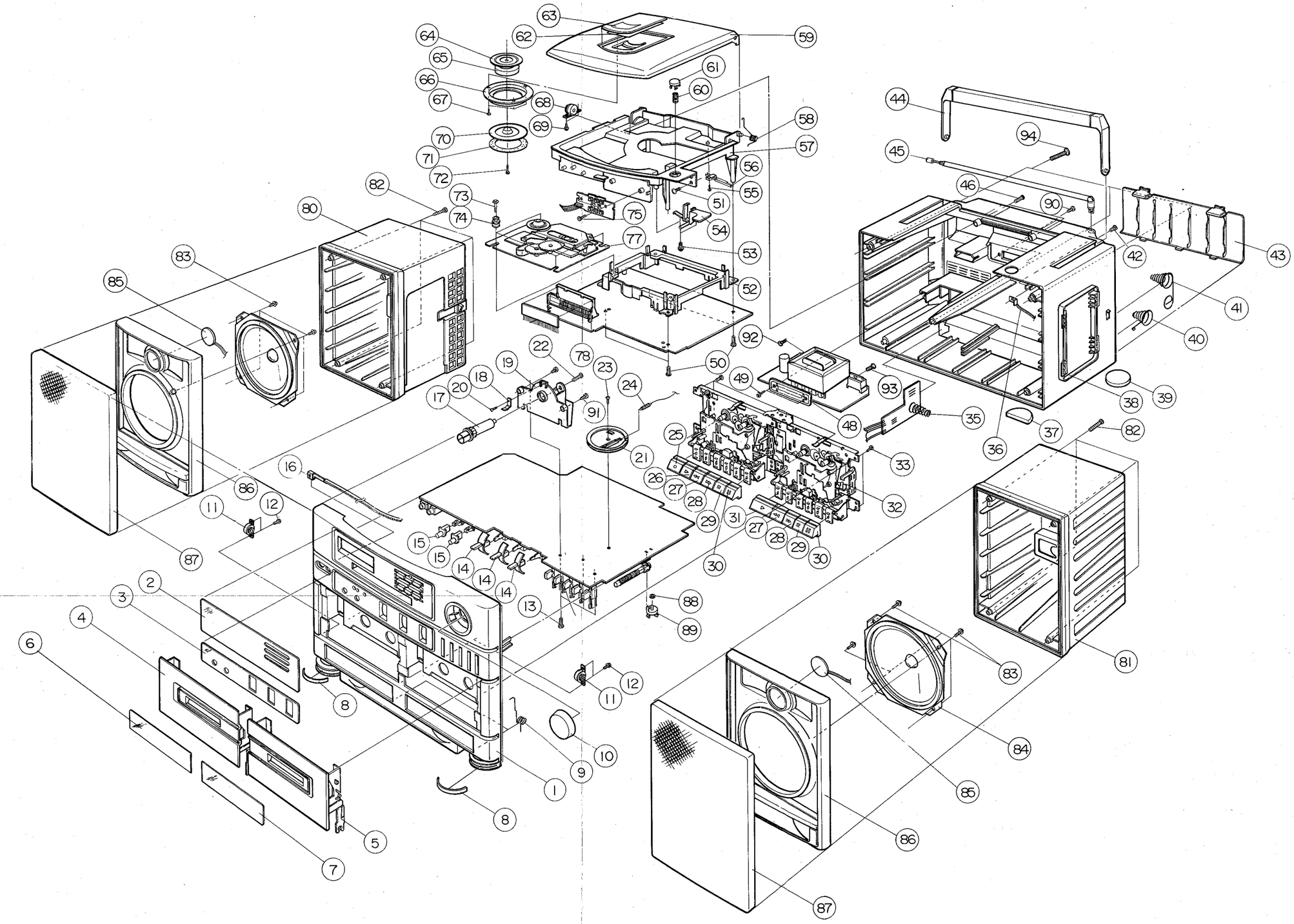
PIN FUNCTION

1. OUTPUT 1
2. – INPUT 1
3. + INPUT 1
4. V+
5. + INPUT 2
6. – INPUT
7. OUTPUT 2
8. OUTPUT 3
9. – INPUT 3
10. + INPUT
11. V
12. + INPUT 4
13. – INPUT 4
14. OUTPUT 4

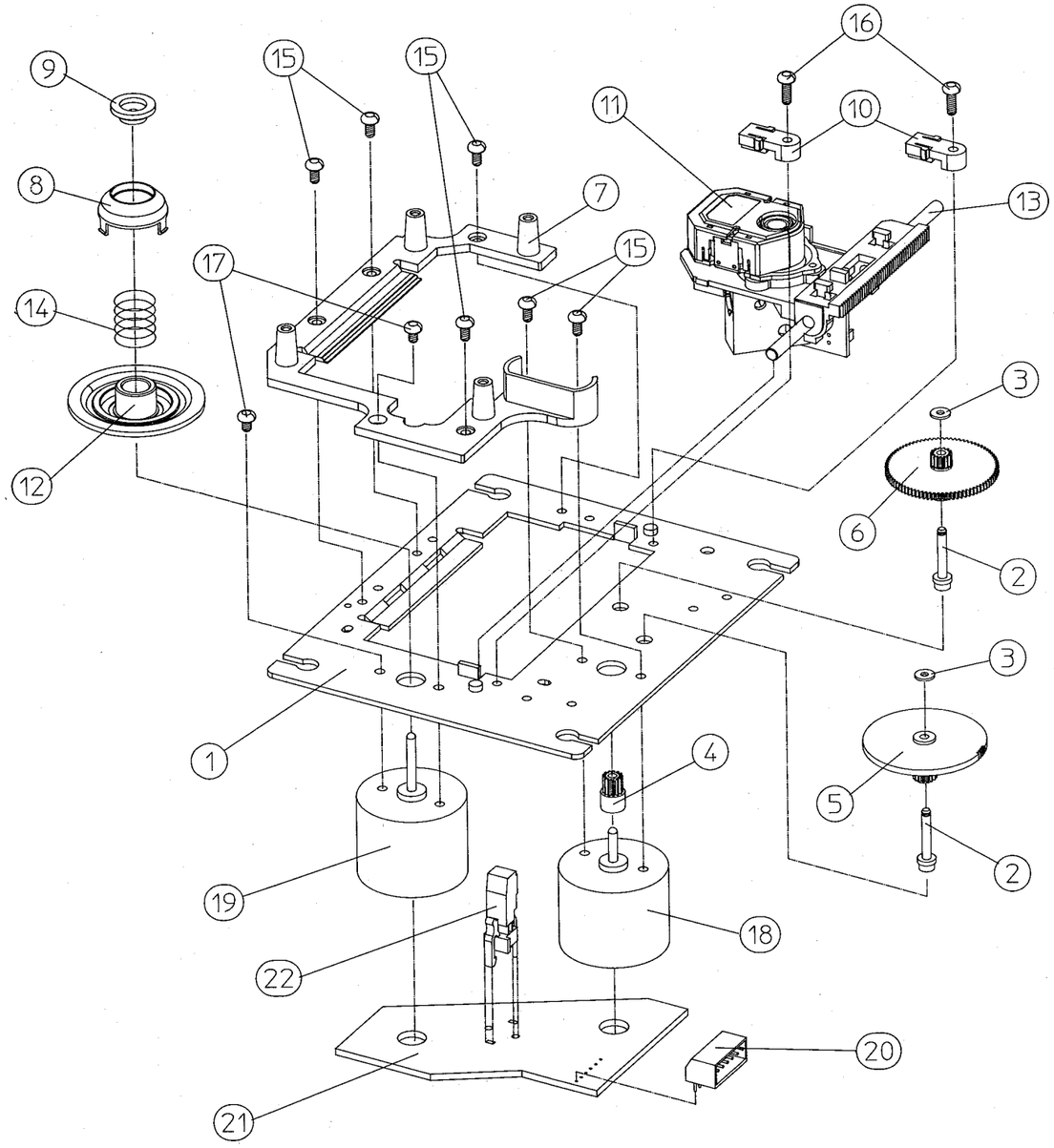
- KA9257 (BTL DRIVER) : IC7777, 7778



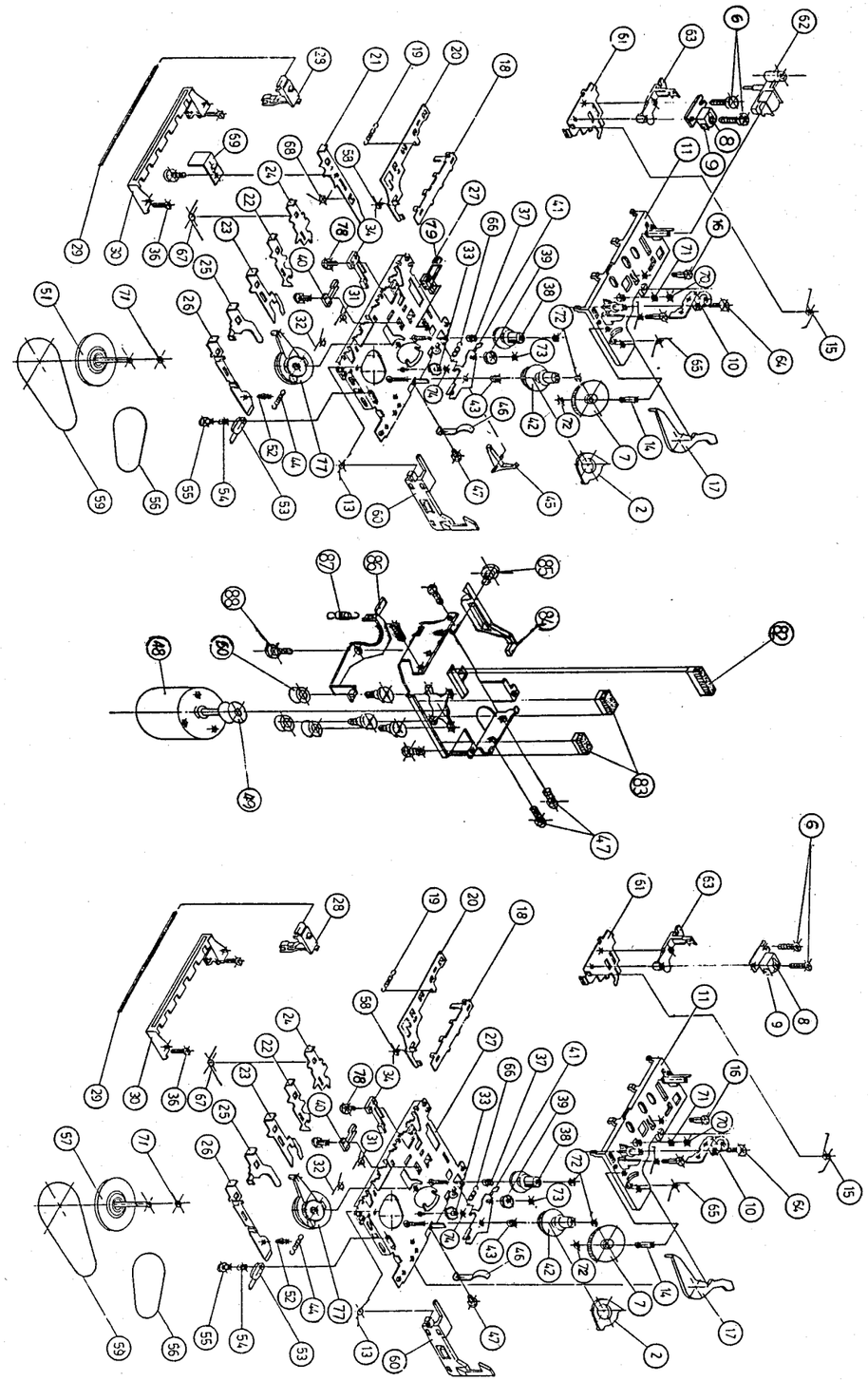
■ EXPLODED VIEW (PCD-700)



■ CD DECK EXPLODED VIEW (CMS-V10)



■ CASSETTE DECK EXPLODED VIEW (ADR1522FW)



■ CASSETTE DECK PARTS LIST

*** DECK ASS'Y : ADR1522FW (14929-104-960)**

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY
2	10000-607-102	SENSOR REEL	1153-00080AA	2
7	10000-607-107	GEAR CAM	11128-0391AA	2
9	10000-523-008	RP HEAD	MS 15R-AA2N1	2
10	10000-607-110	ASS'Y PINCH ARM	ADR15-006	2
17	10000-607-117	ARM SENSOR	11102-00530AA	2
28	10000-607-128	KEY KNOB	11133-00010AA	12
33	10000-607-133	GEAR FF	11128-00080AA	2
34	10000-607-134	SW LEAF (MAIN)	MSW2526GNBKCV	2
38	10000-607-138	REEL S ASS'Y	ADR15-001	2
39	10000-607-139	GEAR ROLLER-T	11128-00050AA	2
40	10000-607-140	SW LEAF (REC)	LSA1119EN	1
42	10000-607-142	REEL T ASS'Y	ADR15-002	2
45	10000-607-145	LEVER REC SAFETY	11134-01000AA	1
46	10000-607-146	SP PACK	51299-02506XC	2
48	10000-502-020	MOTOR	EG530 YD2B	1
49	10000-607-149	PULLEY Y MOTOR	11145-00450AA	1
51	10000-607-151	FLY WHEEL ASS'Y-S	ADR15-003	1
53	10000-607-153	CAM PAUSE LOCK	11116-00010AA	2
55	10000-607-155	CAP	11117-00020AA	2
56	10000-607-156	BELT SUB	34.7 ø x 1.0t	2
57	10000-607-157	FLY WHEEL ASS'Y-D	ADR15-004	1
59	10000-607-159	BELT MAIN	59.7 ø x 1.0t	2
60	10000-607-160	LEVER EJECT (F)	11134-01220AA	2
62	10000-607-162	ARM MAGNETIC	11102-00520AA	1
63	10000-607-163	BASE HEAD-M	11105-00030AA	2
65	10000-607-165	SP PAUSE SAFETY	51263-02026	2
77	10000-607-177	ARM F.R ASS'Y	ADR15-005	2
84	10000-607-184	LEVER RELEASE	11134-01240AA	1
86	10000-607-186	LEVER SYNCRO	11134-01280AA	1

NOTE: Parts which are not described in the DECK list are not serviceable.
If you need any other parts except those described, apply DECK ASS'Y (Only DECK ASS'Y is available).

■ CD DECK PARTS LIST

*** COMPACT DISC DECK ASS'Y (CMS-V10) : 14929-407-010**

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY
4	15214-510-510	GEAR-P/U (A)	P.O.M (DURACON KT-20)	1
5	15214-510-610	GEAR-P/U (B)	NYLON 12	1
6	15214-510-710	GEAR-P/U (C)	P.O.M (DURACON KT-20)	1
10	16033-505-210	HOLDER-SHAFT	ABS 94HB	2
11	14239-101-610	SAMSUNG OPTICAL HEAD	LASER PICKUP SOH90T4	1
13	15104-503-410	SHAFT-P/U	SUS 420J2 Ø3	1
16	17008-120-063	SCREW-PH	+M2 x 6 FE FZB	2
18	14769-057-250	MOTOR-FEED	RF-310T (SHAFT-10.9)	1
22	13564-601-100	LEAF-SW.	MSW-1731CVC	1

* Parts which are not described in the CD DECK list are not serviceable.
If you need any other parts except those described, apply CD DECK ass'y.

■ ELECTRICAL PARTS

1. RADIO CASSETTE SECTION

LOCATION NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
IC601	12119-101-290	IC-POWER AMP	TA8207K	1		
IC301	12109-401-840	IC-PRE/REC	TA8189N	1		
IC1	12119-101-360	IC-TUNER	TA8167N	1		
Q530	12149-101-520	TRANSISTOR	KSA 733-Y	1		
Q2, 333, 441, 801	12149-101-560	TRANSISTOR	KSA 708-Y	4		
Q431, 501, 551	12149-301-840	TRANSISTOR	KSC 900-L	3		
Q301, 351	12149-301-890	TRANSISTOR	KSC 945-L	2		
Q302, 352, 303 353, 701, 802	12149-301-930	TRANSISTOR	KSC 1008-Y	6		
Q502, 552, 334 341, 342, 343	12149-401-160	TRANSISTOR	KSD 227-Y	6		
Q331	12159-301-330	TR-DIGITAL	KSR2003	1		
Q442, 492, 588	12159-301-780	TR-DIGITAL	KSR1003	3		
Q1	12159-301-800	TR-DIGITAL	KSR1007	1		
Q503, 553	12159-301-790	TR-DIGITAL	KSR1009	2		
Q702	12149-401-900	TRANSISTOR	KSD882-0	1		
ZD701 ⚠	12169-403-600	DIODE-ZENER	UZP-8.2B	1		
ZD702 ⚠	12169-403-340	DIODE-ZENER	UZP-9.1B/RD9.1F 1W	1		
D2	12169-501-160	DIODE-AFC	KS3302	1		
D701, 702, 703, 704	12169-201-140	DIODE	1N5392	4		⚠
D801, D802	12169-201-090	DIODE-RECTIFIER	1N4002	2		
D1, 3, 301, 351, 331 332, 333, 334, 335 336, 441, 803, 501 505, 341, 731, 732	12169-301-290	DIODE-SW	1SS53/1N4148 CT: 6PF	17		
LED1, 2	12309-104-550	LED LAMP	SLH-34VC3	2		
L409, 459	12429-306-113	COIL-BIAS TRAP	FB895-85A	2		
BPF	14529-403-010	FILTER-L.C	PFW-B4	1		
CF1	14529-303-061	FILTER-CERAMIC	SFE-10.7MA5-M	1		
CF2	14529-315-010	CERAMIC-FILTER	SFU 455B	1		
SVR801	11249-502-040	VR-SEMIMOLD	RVW6 FOR 2K OMH	1		
SVR1	11249-502-070	VR-SEMIMOLD	RVW6 FOR 10K OMH	1		
R605, 655	11048-577-508	R-METAL OXIDE	RS2P 0.5-J TAPE	2		
V.C	11819-309-510	VARICON-POLY	P2S-22BGLT A/C-54	1		OPTION
V.C	11819-309-380	VARICON-POLY	P2S-22BPT A/C-H	1		OPTION
L102	12513-249-627	COIL-AM ANT ASSY	PI8 x 60 570 μH	1	★	OPTION
L102	12514-203-376	COIL-ANT ASSY	280 μH AR8 x 60 MW/SW	1		OPTION
L102/103	12514-279-576	COIL-ANT ASSY	285 μH/3.5MH AR8 x 100	1		OPTION
L101	12509-805-020	COIL-ANT SW	9.5M/M	1		OPTION
T430	12619-012-811	COIL-SEVENCAN	1R 65HH I-BIAS	1		
T1	12739-202-013	TRANS-IF FM1/STICK	7M/M CAN	1		

LOCATION NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
T2	12749-202-133	TRANS IF, AM, A	7M/M CAN W/S TICK	1		
T3	12619-135-066	COIL-SEVEN CAN	90M M-BASE BLU FFM	1		
L104	12619-171-505	COIL-SEVEN CAN	320NH AQ FMW RED	1		OPTION
L104/105	12619-177-803	COIL-SEVEN CAN	AQ180 μH FMW RED	1		OPTION
L105	12619-173-126	COIL-SEVEN CAN	2.15 μH AQ FSW GREEN	1		OPTION
L104	12619-176-011	COIL-SEVEN CAN	720 μH AQ FLW BLACK	1		OPTION
VR541	11239-115-050	VR-SLIDE SLIMA	RS15V 122S 24A 53B	1		
VR531, 532, 533	11239-115-060	VR-SLIDE	RS15V 123S 14A 53B	3		
VR542	11239-115-070	VR-SLIDE SLIMA	RS15V 113S 14A 53W	1		
TB601	13303-500-620	TERMINAL-BOARD PUSH	4P PUSH HOOK	1		
J601	13339-101-502	JACK-HEADPHONE	SHQ9085-01-142 (GRN)	1		
J401	13339-101-514	JACK-MIC	HSJ1403-01-010 (9010)	1		
J501	13339-403-020	JACK-AUX	8.3PI PHONE TYPE	1		
S5	13529-920-210	SW-PUSH	R2320658	1		
S4	13529-920-220	SWITCH-PUSH	R2320615 2C-2P	1		
S3	13549-801-120	SW-LEVER	4C-3PX043E29Y	1		
S2	13549-801-300	SWITCH-LEVER	T0084005 8C-4P	1		
S1	13549-801-210	SWITCH-LEVER	00221013S 2C-2P	1		OPTION
S1	13549-801-310	SW-LEVER	T0083002 8C-3P	1		OPTION
T701 ⚠	12869-221-830	TRANS-POWER	EI57X32 110/220V KS	1		OPTION
T701 ⚠	12869-221-810	TRANS-POWER	EI57 x 32 120/220V UL·CSA	1		OPTION
T701 ⚠	12869-221-840	TRANS-POWER	EI57 x 32 220/240V	1		OPTION
J701 ⚠	13354-501-320	SOCKET-2PSW (CP)	HSC 1466-01-0101 (PIN)	1		OPTION
J701 ⚠	13354-501-310	SOCKET-2PSW (EP)	HSC 1463-01-0101 (PIN)	1		OPTION
V/SEL ⚠	13599-502-020	VOLT SELECT	PCB 110V/220V	1		OPTION
F902 ⚠	14709-241-080	FUSE	T250V 0.16A 20EUR	1		OPTION
F903 ⚠	14709-241-110	FUSE	T250V 0.315A 20EUR	1		OPTION
CON310	13029-148-130	CONNECTOR-WIRE	5102-04 1533 #28 300M/M	1		
CON820	13029-127-115	CONNECTOR-WIRE	5102-02 1007 #26 150M/M	1		
CON410	13029-448-140	CONNECTOR-WIRE	5264-04 1533 #28 400M/M	1		
CON810	13029-477-230	CONNECTOR-WIRE	5264-07 1007 #26 300M/M	1		
CON820	13349-512-520	CONNECTOR-WAFER	STICK 5045-02A 2P-TYPE	1		
CON310	13349-512-550	CONNECTOR-WAFER	STICK 5045-04A 4P-TYPE	1		
CON710, 910	13349-512-561	CONNECTOR-WAFER	STICK 5267-02A 2P-TYPE	2		
CON410	13349-512-562	CONNECTOR-WAFER	STICK 5267-04A 4P-TYPE	2		
CON530	13349-512-565	CONNECTOR-WAFER	STICK 5267-06A 6P-TYPE	1		
CON810	13349-512-568	CONNECTOR-WAFER	STICK 5267-07A 7P-TYPE	1		
CON710	13078-472-115	CONNECTOR-WIRE/B, S	5264-02/5395-02	1		

* ⚠ indicates parts for circuit safe guarding purposes.
Therefore, when replacing, be sure to use specified parts only.

2. CD SECTION

LOCATION NO.	CODE NO.	DESCRIPTION	SPECIFICATION	QTY	NEW	REMARK
IC0316	12109-303-150	IC-DAC	KDA0316LD (BULK)	1		
IC5990	12119-203-770	IC-DS PROCESSOR	KS5990/KS59910	1	★	
IC8309	12119-203-780	IC-SS PROCESSOR	KA8309 (SAMSUNG SSP)	1	★	
IC8309 (OPTION)	12109-323-740	IC-SS PROCESSOR	CXA1082AQ (SONY SSP)	1		
IC9201	12119-203-790	IC-RF AMP	KA9201	1	★	
IC7777, 7778	12119-202-920	IC-BTL DRIVER	KA9257	2	★	
IC7805	12119-601-170	IC-VOLT REGULATOR	MC78M05	1		
IC3403	12119-401-210	IC-OP AMP	NJM3403AD	1		
IC7530	12109-303-690	IC-MICOM	KS56C820-06	1	★	
Q1701	12149-202-050	TRANSISTOR	KSB564A-Y	1		
Q1903, 1904, 1906, 1907 1909	12149-301-890	TRANSISTOR	KSC945-L	5		
Q1501, 1502, 1901, 2000	12159-301-780	TR-DIGITAL	KSR1003	4		
Q1791, 1792	12159-301-800	TR-DIGITAL	KSR1007	2		
Q1902	12159-301-330	TR-DIGITAL	KSR2003	1		
Q1908	12159-301-810	TR-DIGITAL	KSR2007	1		
D1901, 1501, 1502, 1503 1504, 901, 902, 903 904, 804, 805, 1902	12169-301-290	DIODE-SW	1SS53/1N4148, CT: 6PF	12		
L1701, 1601, 1501, 1801	12429-411-109	COIL-CHOKE	BAL03ST1ROM	4		
L1901	12429-411-101	COIL-CHOKE	LAL02TB 101K, 100UH	1		
RF229 ⚠	11058-377-229	R-FUSIBLE	1/2T 2.2J	1		
XF1702	14534-504-040	CERAMIC-RESONATOR	CSA 4.00MG	1		
XF1701	14539-401-050	X-TAL	HC18U 16.9344MHz	1		
VR1704, 1705, 1701	11249-002-250	VR-SEMI	VZ067TH T20KB, HDK V-TYPE	3		
VR1703	11249-002-260	VR-SEMI FIXED	VZ067TH T50KB, HDK V-TYPE	1		
VR1702	11249-002-120	VR-SEMI FIXED	VZ068TLT 1KB ; HDK H-TYPE	1		
LCD	12339-101-900	LCD-CD	8174R	1		

* ⚠ indicates parts for circuit safe guarding purpose.
Therefore, when replacing, be sure to use specified parts only.

■ MECHANICAL PARTS (PCD-700)

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
1	16000-532-710	FRONT CABINET	HIPS	1	★	
2	17654-565-510	WINDOW LCD	PVC	1	★	
3	17654-565-610	WINDOW CONTROL	PVC	1	★	
4	17642-544-010	DOOR CASSETTE "L"	ABS	1	★	
5	17642-544-110	DOOR CASSETTE "R"	ABS	1	★	
6	17654-565-710	WINDOW CASSETTE "L"	PVC	1	★	
7	17654-565-810	WINDOW CASSETTE "R"	PVC	1	★	
8	17824-526-610	DECORATION FOOT	AL T0.3	2		
9	16674-570-711	DOOR SPRING	PWR T0.9	2	★	
10	17624-633-210	KNOB TUNING	ABS	1	★	
11	15214-506-011	DAMPER ASSY	ACETAL	2		DAMPERGEAR
12	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	4		CHASSIS
13	17458-230-101	SCREW-TAP TITE BH	2S-3 x 10 FE FZY	3		HOLDER TUNING
14	17624-588-410	KNOB LEVER	ABS	3	★	
15	17624-633-310	KNOB PUSH	ABS	2	★	
16	17644-520-550	POINTER	NILON 66	1	★	
17	17644-520-710	GEAR TUNING	ABS	1	★	
18	16624-578-700	BRKT-TUNING	SUS 0.3T	1	★	
19	17644-520-610	CHASSIS-TUNING	ABS	1	★	
20	17158-320-061	SCREW-TAP TITE BH	3-2 x 6 FE FZY	1		
21	15214-504-510	WHEEL DRUM	ABS	1	★	
22	17158-530-061	SCREW-SPEC TAP RH	2S-3 x 6 FE FZY	1		GEAR TUNING
23	17048-126-051	SCREW-RH	+M2.6 x 5 FE FZY	1		DRUM
24	16674-500-210	SPRING DRUM	SUS 27 PI0.5	1		
25	17624-634-010	KNOB DECK REC	ABS	1	★	
26	17624-633-410	KNOB DECK PLAY "A"	ABS	1	★	
27	17624-633-710	KNOB DECK REW	ABS	2	★	
28	17624-633-610	KNOB DECK F.F	ABS	2	★	

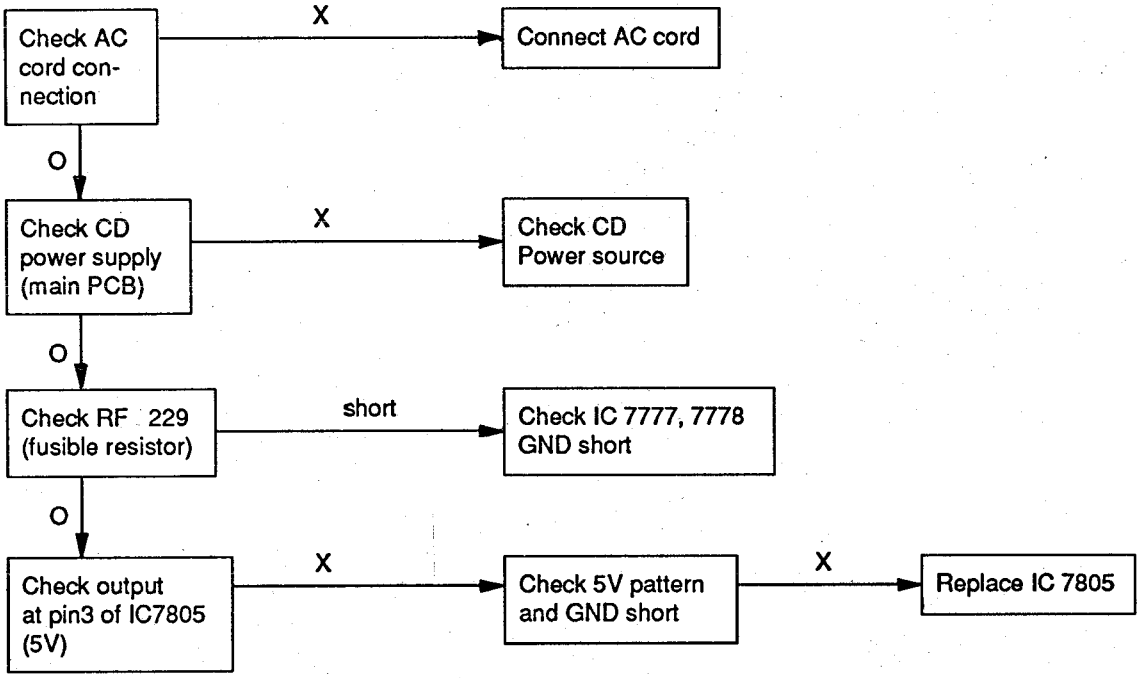
NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
29	17624-633-810	KNOB DECK ST/EJT	ABS	2	★	
30	17624-633-910	KNOB DECK PAUSE	ABS	2	★	
31	17624-633-510	KNOB DECK PLAY "B"	ABS	1	★	
32	14929-104-960	TAPE DECK	ARD 1522FW	1		
33	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	6		DECK MOUNTING
35	16674-560-220	SPRING BATTERY K	SWP PI1.0	1		
36	16624-513-310	BRKT ANTENA	SPTE T0.3	1		
37	16174-504-310	RUBBER FOOT "A	RUBBER	2	★	
38	16000-532-810	BACK CABINET	HIPS	1	★	
39	16174-504-320	RUBBER FOOT "B	RUBBER	2	★	
40	16674-531-710	SPRING BATTERY C	SWP ø 1.2 FNZ	1		
41	16674-520-810	SPRING BATTERY A	PWR	1		
42	17048-130-101	SCREW RH	+M3 x 10 FE FZY	1		
43	17643-526-410	LID BATTERY	HIPS	1	★	
44	17663-508-010	HANDLE	ABS	1	★	
45	14509-316-100	ANT-ROD	KDP-0224-A-O	1		
46	17458-230-103	SCREW-TAP TITE BH	B-3 x 10 FZB			
48	16624-578-600	BRKT POWER	SBHG T1.2	1	★	
49	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	2		TRANS
50	17458-230-101	SCREW-TAP TITE BH	2S-3 x 10 FZY	6		CHASSIS
51	17558-230-101	SCREW-TAP BH SPEC	2S-3 x 10 FE FZY	1		
52	16021-505-700	CHASSIS MECHA	ABS	1	★	
53	17558-230-081	SCREW-TAP TITE SPEC	S-3 x 8 FZY	2		LEVER EJECT
54	17644-521-400	LEVER EJECT	ACETAL/BLACK	1	★	
55	17158-220-103	SCREW-TAP, BH	2-2 x 10 FZB	1		LEAF
56	13564-601-060	LEAF-SWITCH	MSW-0080 CNBKP	1		
57	16001-613-510	CHASSIS CD	ABS	1	★	
58	16674-560-420	SPRING CD DOOR	PWR ø1.0	1		
59	17642-541-910	CD-DOOR	ABS	1	★	

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
60	16674-573-410	SPRING PUSH	SUS-27 ø 0.35	1		
61	17624-634-110	KNOB-PUSH EJECT	ABS	1	★	
62	18154-597-010	STICKER WINDOW	SOO KWANG	1	★	CD
63	17644-520-410	WINDOW CD	ACRYL	1	★	
64	16623-504-420	BRKT CHUCK	SBHG-1 T0.5	1		
65	14014-500-230	MAGNET CORE	SR FERRITE	1		
66	17644-520-510	HOLDER CHUCK	ABS	1	★	
67	17108-120-052	SCREW-TAP, PH	1-2 x 5 FE FZW	3		
68	15214-506-011	DAMER ASSY	ACETAL	1		
69	17558-230-101	SCREW-TAP BH SPEC	2S-3 x 10 FE FZY	2		
70	16603-511-810	HOLDER CHUCK PLATE	ABS BLK	1		
71	16854-515-920	SHEET HYMERON	THICK 0.5	1		
72	17098-120-032	SCREW-BH	+M x 3 FE FZW	1		
73	15104-531-710	SHAFT-CD	FE FZY 2.6 x 10.5	4		
74	16174-503-410	RUBBER-CD	SI RUBBER	4		
75	17458-130-081	SCREW TAP TITE BH	B-3 x 8 FE FZY	1		
77	14929-407-010	DECK-CD	CMS-V10/A	1		
78	17644-520-810	LCD HOLDER	ABS	1		
80	16000-532-910	SPEAKER BACK "L"	HIPS	1	★	
81	16000-535-010	SPEAKER BACK "R"	HIPS	1	★	
82	17448-130-201	SCREW-TAP TITE BH	B-3 x 20 FE FZY	8		SPEAKER MOUNTING
83	17158-530-101	SCREW-TAP RH SPEC	2S-3 x 10 FE FZY	8		GENERAL SPEAKER
84	14209-115-227	SPEAKER GENERAL	Y120FB-02 3.2 Ω 5W	2		
85	14259-500-140	PIAZO TWEETER	BD27-20S PIAZO 150M/M	2		
86	16001-613-410	SPEAKER FRONT	HIPS	2	★	
87	17713-511-010	SPEAKER GRILLE	SPC 0.6T	2	★	
88	15214-502-110	PULLEY-S	P.A WHT	1		
89	16604-541-300	HOLDER TUNING	ABS	1		
90	17118-530-123	SCREW-TAP FH	2S-3 x 12 FZB	2		TERMINAL
91	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FZY	2		
92	17148-526-101	SCREW-TAP RH	2S-2.6 x 10 FZY	1		AC SOCKET
93	17148-526-101	SCREW-TAP RH	2S-2.6 x 10 FZY	1		VOLTAGE BACK MOUNTING
94	17448-130-201	SCREW-TAP TITE BH	B-3 x 20 FZY	5		

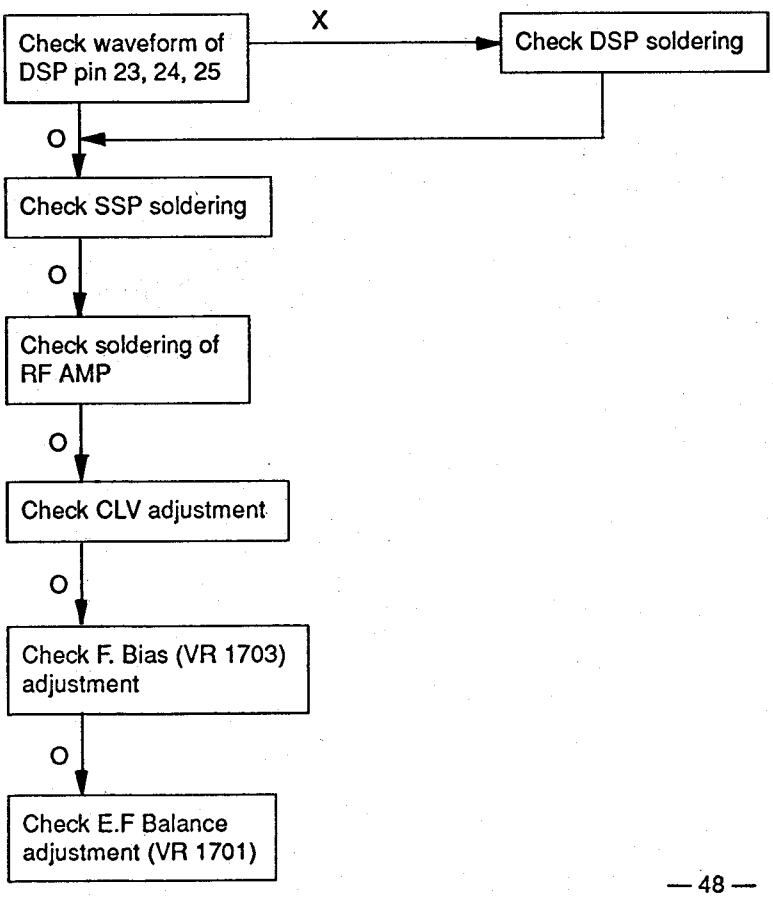
■ TROUBLE SHOOTING (CD)

* Refer to Schematic Diagram & Waveform Diagram.

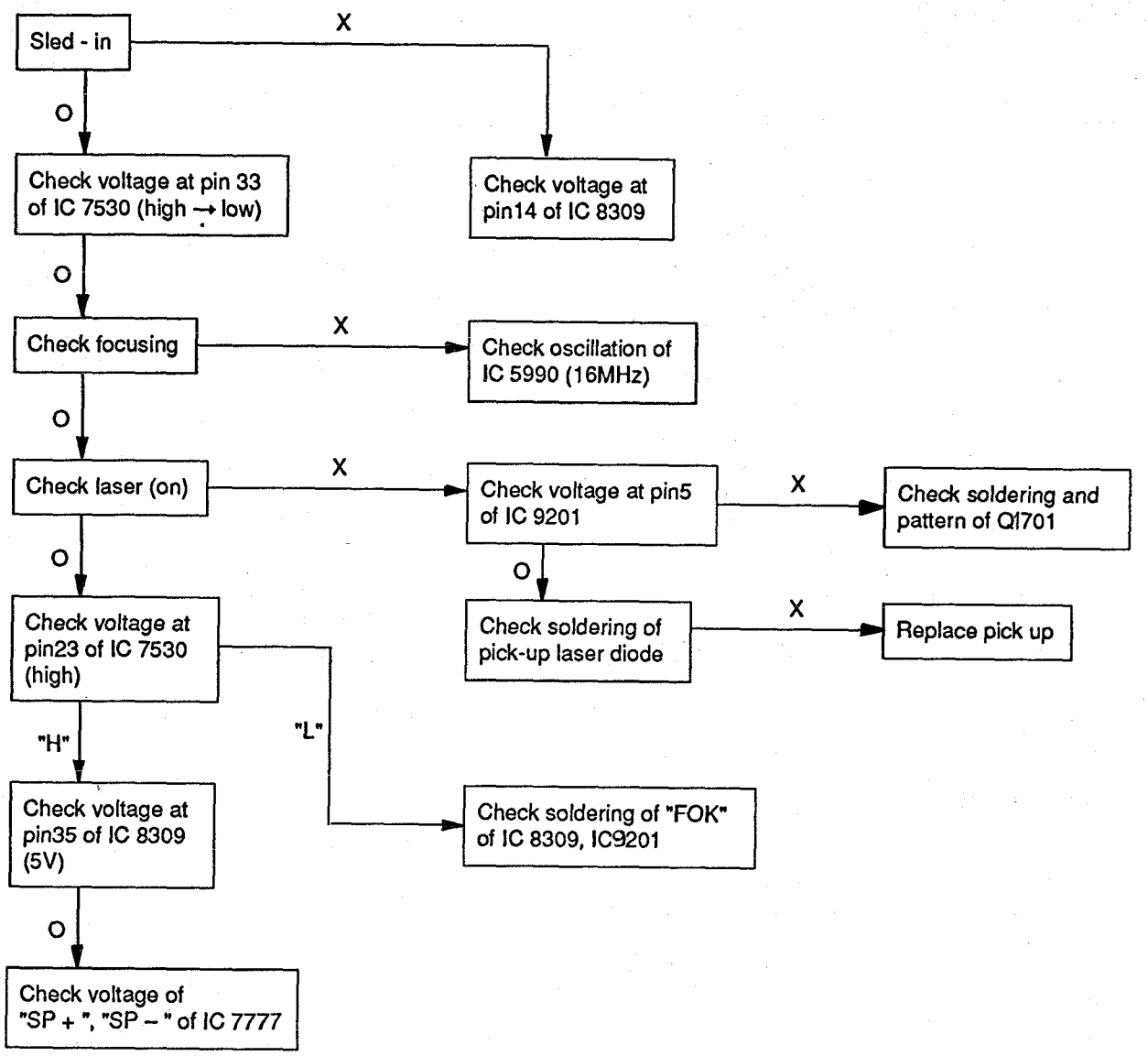
1. POWER NOT SENSIBLE



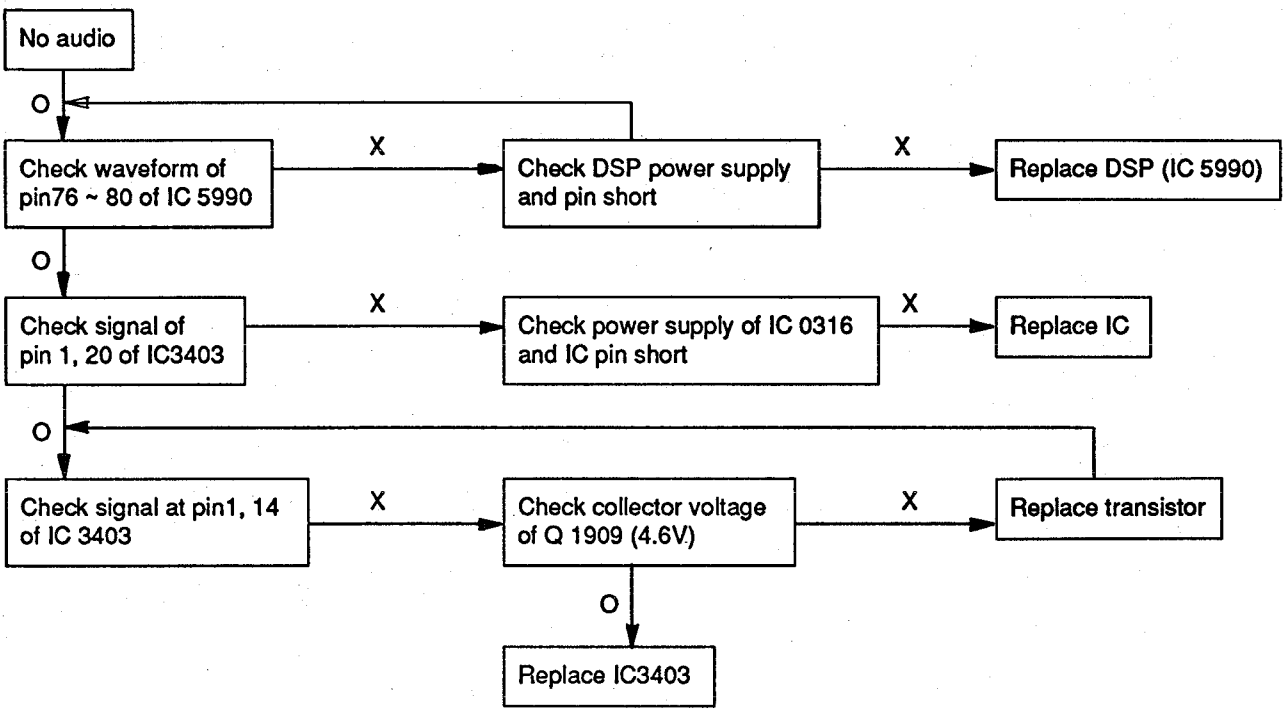
2. LEAD-IN NOT WORKING



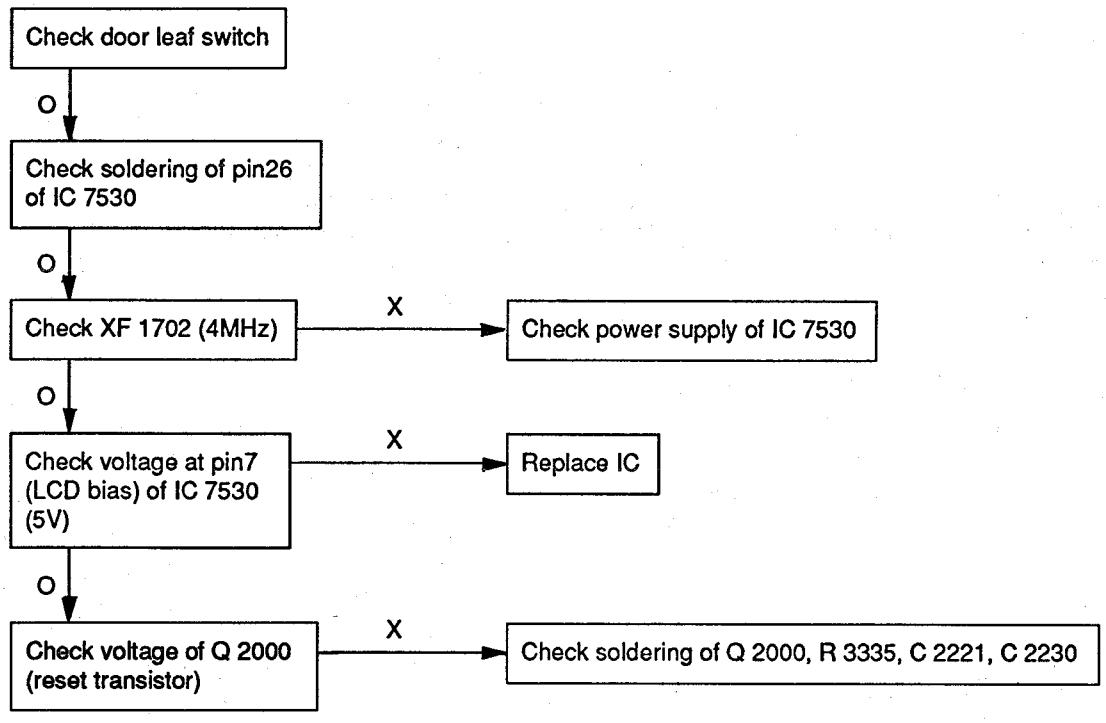
3. DISC NOT ROTATING



4. NO AUDIO



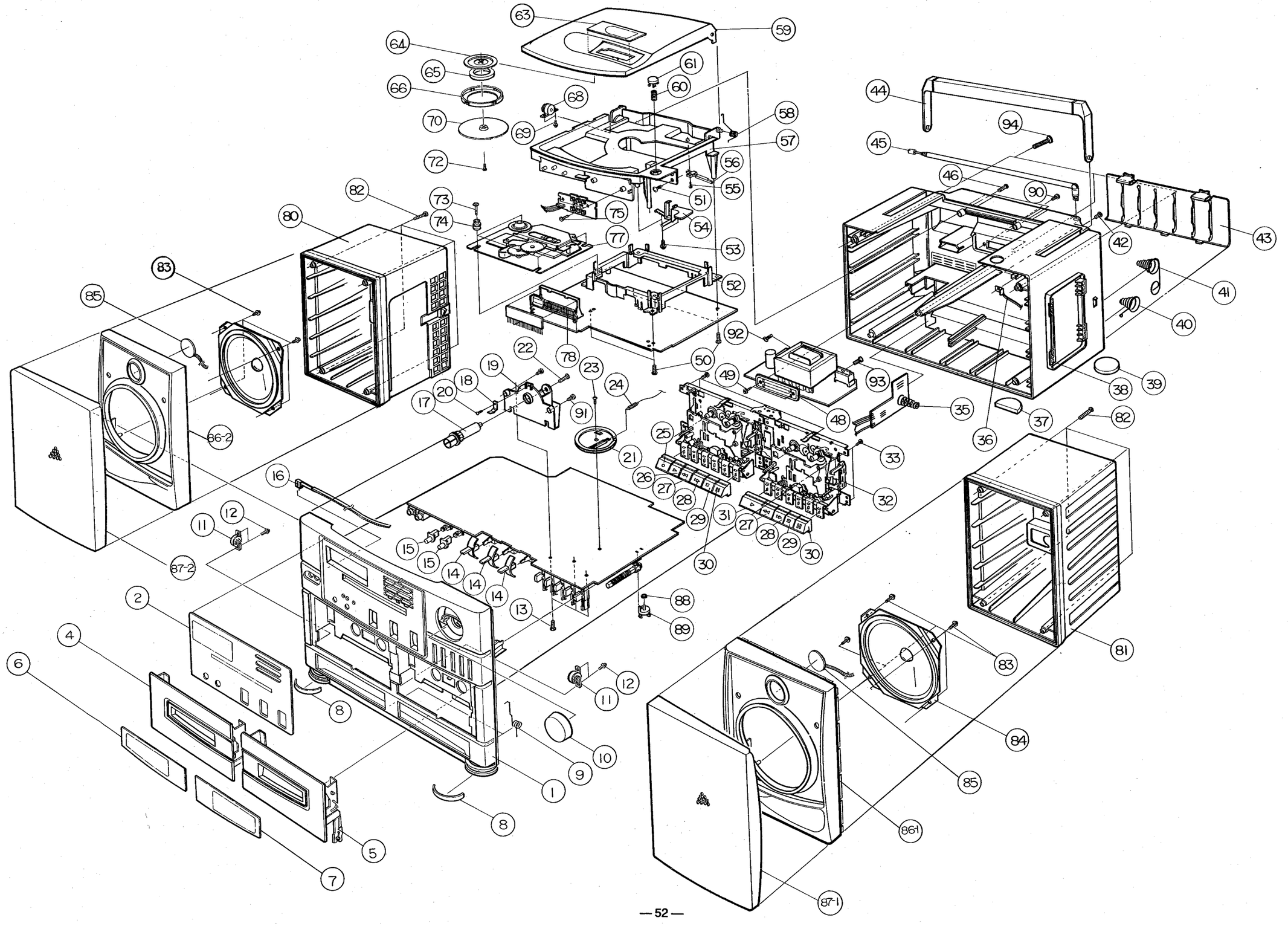
5. DISPLAY NOT WORKING



■ ABBREVIATION LIST

AC	:	Alternating Current
AM	:	Amplitude Modulation
AMP:	:	AMPlifier
ANT	:	ANTenna
ASS'Y	:	ASSemblY
BLK	:	BLacK
BLU	:	BLUe
BPF	:	Band Pass Filter
CD	:	Compact Disc
CF	:	Ceramic Filter
CH	:	CHannel
cm	:	centimeter
COM	:	COMmon
D	:	Depth
D/A	:	Digital/Analog
dB	:	deciBel
DC	:	Direct Current
EA	:	EAch
EQ	:	EQualizer
F/F	:	Filp Flop
FM	:	Frequency Modulation
GND	:	GrouND
GRN	:	GReen
GRY	:	GRaY
H	:	Height, High
IC	:	Integrated Circuit
IF	:	Intermediate Frequency
IFT	:	Intermediate Frequency Transformer
I/O	:	Input/Output
Kg	:	Kilogram
L	:	Left, Low
LCD	:	Liquid Crystal Display
mm	:	millmeter
mV	:	milli Volt
mW	:	milli Watt
NF	:	Negative Feedback
nm	:	nanometer
ORG	:	ORanGe
OSC	:	OSCillator
PCB	:	Printed Circuit Board
PLL	:	Phase Locked Loop
P/T	:	Power Transformer
R	:	Right
RAM	:	Random Access Memory
REG	:	REGulator
RF	:	Radio Frequency
ROM	:	Read Only Memory
R/P	:	Record/Play
sec	:	second
SPK	:	SPeaKer
SSG	:	Standard Signal Generator
SW	:	SWitch
TP	:	Test Point
TRANS	:	TRANSformer
V	:	Volt
VIO	:	VIOlet
VCO	:	Voltage Controlled Oscillator
VR	:	Variable Resistor
Vref	:	REFerence Voltage
V/SEL	:	Voltage SELector
VTVM	:	Vacuum Tube Volt Meter
W	:	Watt, Weight
WHT	:	WHiTe
X	:	crystal

■ EXPLODED VIEW (PCD-710)



■ MECHANICAL PARTS (PCD-710)

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
1	16000-536-310	FRONT CABINET	HIPS	1	★	
2	17653-537-810	WINDOW FRONT	PC T0.5	1	★	
4	17641-501-310	LID CASSETTE "L"	ABS	1	★	
5	17641-501-410	LID CASSETTE "R"	ABS	1	★	
6	17654-570-210	WINDOW CASSETTE "L"	PC T0.5	1	★	
7	17654-570-310	WINDOW CASSETTE "R"	PC T0.5	1	★	
8	17824-526-610	DECORATION FOOT	AL T0.3	2		
9	16674-570-711	DOOR SPRING	PWR T0.9	2	★	
10	17624-633-210	KNOB TUNING	ABS	1	★	
11	15214-506-011	DAMPER ASSY	ACETAL	2		DAMPERGEAR
12	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	4		CHASSIS
13	17458-230-101	SCREW-TAP TITE BH	2S-3 x 10 FE FZY	3		HOLDER TUNING
14	17624-588-410	KNOB LEVER	ABS	3	★	
15	17624-633-310	KNOB PUSH	ABS	2	★	
16	17644-520-550	POINTER	NILON 66	1	★	
17	17644-520-710	GEAR TUNING	ABS	1	★	
18	16624-578-700	BRKT-TUNING	SUS 0.3T	1	★	
19	17644-520-610	CHASSIS-TUNING	ABS	1	★	
20	17158-320-061	SCREW-TAP TITE BH	3-2 x 6 FE FZY	1		
21	15214-504-510	WHEEL DRUM	ABS	1	★	
22	17158-530-061	SCREW-SPEC TAP RH	2S-3 x 6 FE FZY	1		GEAR TUNING
23	17048-126-051	SCREW-RH	+M2.6 x 5 FE FZY	1		DRUM
24	16674-500-210	SPRING DRUM	SUS 27 PI0.5	1		
25	17624-634-010	KNOB DECK REC	ABS	1	★	
26	17624-633-410	KNOB DECK PLAY "A"	ABS	1	★	
27	17624-633-710	KNOB DECK REW	ABS	2	★	
28	17624-633-610	KNOB DECK F.F	ABS	2	★	
29	17624-633-810	KNOB DECK ST/EJT	ABS	2	★	
30	17624-633-910	KNOB DECK PAUSE	ABS	2	★	
31	17624-633-510	KNOB DECK PLAY "B"	ABS	1	★	
32	14929-104-960	TAPE DECK	ARD 1522FW	1		
33	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	6		DECK MOUNTING
35	16674-560-220	SPRING BATTERY K	SWP PI1.0	1		
36	16624-513-310	BRKT ANTENA	SPTE T0.3	1		
37	16174-504-310	RUBBER FOOT "A	RUBBER	2	★	
38	16000-532-810	BACK CABINET	HIPS	1	★	
39	16174-504-320	RUBBER FOOT "B	RUBBER	2	★	
40	16674-531-710	SPRING BATTERY C	SWP ø 1.2 FNZ	1		
41	16674-520-810	SPRING BATTERY A	PWR	1		
42	17048-130-101	SCREW RH	+M3 x 10 FE FZY	1		
43	17643-526-410	LID BATTERY	HIPS	1	★	
44	17663-508-010	HANDLE	ABS	1	★	
45	14509-316-100	ANT-ROD	KDP-0224-A-O	1		
46	17458-230-103	SCREW-TAP TITE BH	B-3 x 10 FZB	1		

NO.	CODE NO.	DESCRIPTION	SPECIFICATION	Q'TY	NEW	REMARK
48	16624-578-600	BRKT POWER	SBHG T1.2	1	★	
49	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FE FZY	2		TRANS
50	17458-230-101	SCREW-TAP TITE BH	2S-3 x 10 FZY	6		CHASSIS
51	17558-230-101	SCREW-TAP BH SPEC	2S-3 x 10 FE FZY	1		
52	16021-505-700	CHASSIS MECHA	ABS	1	★	
53	17558-230-081	SCREW-TAP TITE SPEC	S-3 x 8 FZY	2		LEVER EJECT
54	17644-521-400	LEVER EJECT	ACETAL/BLACK	1	★	
55	17158-220-103	SCREW-TAP, BH	2-2 x 10 FZB	1		LEAF
56	13564-601-060	LEAF-SWITCH	MSW-0080 CNBKP	1		
57	16001-613-510	CHASSIS CD	ABS	1	★	
58	16674-560-420	SPRING CD DOOR	PWR ø1.0	1		
59	17642-545-610	CD-DOOR	ABS	1	★	
60	16674-573-410	SPRING PUSH	SUS-27 ø 0.35	1		
61	17624-634-110	KNOB-PUSH EJECT	ABS	1	★	
63	17644-522-310	WINDOW CD	PC T0.5	1	★	
64	16623-504-420	BRKT CHUCK	SBHG-1 T0.5	1		
65	14014-500-230	MAGNET CORE	SR FERRITE	1		
66	16034-504-210	HOLDER CHUCK	ABS	1	★	
68	15214-506-011	DAMPER ASSY	ACETAL	1		
69	17558-230-101	SCREW-TAP BH SPEC	2S-3 x 10 FE FZY	2		
70	16603-511-810	HOLDER CHUCK PLATE	ABS BLK	1		
72	17098-120-032	SCREW-BH	+M x 3 FE FZW	1		
73	15104-531-710	SHAFT-CD	FE FZY 2.6 x 10.5	4		
74	16174-503-410	RUBBER-CD	SI RUBBER	4		
75	17458-130-081	SCREW TAP TITE BH	B-3 x 8 FE FZY	1		
77	14929-407-010	DECK-CD	CMS-V10/A	1		
78	17644-520-810	LCD HOLDER	ABS	1		
80	16000-532-910	SPEAKER BACK "L"	HIPS	1	★	
81	16000-535-010	SPEAKER BACK "R"	HIPS	1	★	
82	17448-130-201	SCREW-TAP TITE BH	B-3 x 20 FE FZY	8		SPEAKER MOUNTING GENERAL SPEAKER
83	17158-530-101	SCREW-TAP RH SPEC	2S-3 x 10 FE FZY	8		
84	14209-115-227	SPEAKER GENERAL	Y120FB-02 3.2Ω 5W	2		
85	14259-500-140	PIAZO TWEETER	BD27-20S PIAZO 150M/M	2		
86-1	16001-514-410	SPEAKER FRONT R	HIPS	1	★	
86-2	16001-514-510	SPEAKER FRONT L	HIPS	1	★	
87-1	17712-552-410	SPEAKER GRILLE R	SPC T0.6	1	★	
87-2	17712-552-310	SPEAKER GRILLE L	SPC T0.6	1	★	
88	15214-502-110	PULLEY-S	P.A WHT	1		
89	16604-541-300	HOLDER TUNING	ABS	1		
90	17118-530-123	SCREW-TAP FH	2S-3 x 12 FZB	2		TERMINAL
91	17458-130-121	SCREW-TAP TITE BH	B-3 x 12 FZY	2		
92	17148-526-101	SCREW-TAP RH	2S-2.6 x 10 FZY	1		AC SOCKET
93	17148-526-101	SCREW-TAP RH	2S-2.6 x 10 FZY	1		VOLTAGE BACK MOUNTING
94	17448-130-201	SCREW-TAP TITE BH	B-3 x 20 FZY	5		